

THE CARNEGIE-IRVINE GALAXY SURVEY. I. OVERVIEW AND ATLAS OF OPTICAL IMAGES

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ABSTRACT

The Carnegie-Irvine Galaxy Survey (CGS) is a long-term program to investigate the photometric and spectroscopic properties of a statistically complete sample of 605 bright ($B_T < 12.9$ mag), southern ($\delta < 0^\circ$) galaxies using the facilities at Las Campanas Observatory. This paper, the first in a series, outlines the scientific motivation of CGS, defines the sample, and describes the technical aspects of the optical broadband (*BVR*) imaging component of the survey, including details of the observing program, data reduction procedures, and calibration strategy. The overall quality of the images is quite high, in terms of resolution (median seeing $\sim 1''$), field of view (8.9×8.9), and depth (median limiting surface brightness $\sim 27.5, 26.9, 26.4$, and 25.3 mag arcsec⁻² in the *B*, *V*, *R*, and *I* bands, respectively). We prepare a digital image atlas showing several different renditions of the data, including three-color composites, star-cleaned images, stacked images to enhance faint features, structure maps to highlight small-scale features, and color index maps suitable for studying the spatial variation of stellar content and dust. In anticipation of upcoming science analyses, we tabulate an extensive set of global properties for the galaxy sample. These include optical isophotal and photometric parameters derived from CGS itself, as well as published information on multiwavelength (ultraviolet, *U*-band, near-infrared, far-infrared) photometry, internal kinematics (central stellar velocity dispersions, disk rotational velocities), environment (distance to nearest neighbor, tidal parameter, group or cluster membership), and H I content. The digital images and science-level data products will be made publicly accessible to the community.

Subject headings: atlases — galaxies: fundamental parameters — galaxies: general — galaxies: photometry — galaxies: structure — galaxies: surveys

1. MOTIVATION

The structural components of a galaxy bear witness to the major episodes that have shaped them during its life cycle, and, as such, provide crucial fossil records of the physical processes operating in galaxy formation and evolution. Morphological clues have long guided our intuition about galaxy formation (Gott 1977; Wyse et al. 1997). The two most conspicuous luminous components modulated along the Hubble sequence—the bulge and the disk—have been the main focal points of our modern concepts of how galaxies were assembled. The roughly spheroidal shape of elliptical galaxies and the bulges of spiral galaxies, along with the recognition of their generally evolved stellar population, signify rapid, dissipationless collapse at an early epoch. The $r^{1/4}$ profile (de Vaucouleurs 1948) of ellipticals and classical bulges is often interpreted as a signature of violent relaxation (van Albada 1982) resulting from rapid assembly through major mergers. By contrast, the flattened configuration of an exponential disk (Freeman 1970), along with their younger, more mixed stellar populations, suggests that more gradual, dissipative processes have been operating and are still ongoing today.

With the advent of modern, large-format detectors and the accompanying improvement in linearity, dynamic range, and image resolution, our view of galaxy morphology has grown

steadily more elaborate, to the point that, in many instances, the classical picture of a bulge plus disk no longer suffices to describe the complex details seen in state-of-the-art galaxy images. While an $r^{1/4}$ law still provides a good first-order approximation to the overall light distribution of many elliptical galaxies, at least in images taken with typical ground-based resolutions⁷, the situation is considerably more complicated for the bulges of disk galaxies. The central light distribution of not only spirals, but also S0s, shows a variety of shapes (e.g., Andredakis & Sanders 1994; Courteau et al. 1996; de Jong 1996; MacArthur et al. 2003; Laurikainen et al. 2005; Graham & Worley 2008; Gadotti 2009), which are often well represented by a Sérsic (1968) $r^{1/n}$ profile, with n ranging from 1 (pure exponential) to 4 (standard de Vaucouleurs value). Imaging with the *Hubble Space Telescope* reveals an even greater degree of structural heterogeneity, including nuclear disks, nuclear spirals and rings, central nuclei and star clusters, and intricate dust lanes (e.g., Carollo et al. 1997; Böker et al. 2002; Seigar et al. 2002).

This rich variety of kinematically cold structures in the central regions of galaxies compels us to reevaluate the very definition of a “bulge.” Evidently many bulges are not the old, dead, fully established systems we once thought. Instead, they appear to have experienced a much more gradual, protracted

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⁷In detail, the global profiles of ellipticals span a wider range of shapes (see Kormendy et al. 2009 for a recent, comprehensive review). At sub-arcsecond resolution, for instance, as afforded by the *Hubble Space Telescope*, the central light distributions show significant additional deviations from the global, outer profiles (e.g., Lauer et al. 1995; Ravindranath et al. 2001).

history of formation in which secular evolutionary processes have been—and still are—at work. While most of the recent attention has focused on the phenomenon of “pseudobulges” (Kormendy & Kennicutt 2004, and references therein), there has also been a growing appreciation that even the classical bulges may have experienced a rather dynamic evolutionary history. Apart from the prevalence of features such as kinematically distinct or counterrotating cores, which are indicative of discrete accretion events (e.g., Forbes et al. 1995), many early-type galaxies contain nuclear gaseous disks and dust lanes (e.g., van Dokkum & Franx 1995; Tran et al. 2001) and central stellar disks (e.g., Rix & White 1992; Ledo et al. 2010), concrete reminders that these are continually evolving systems. In addition, a large fraction of disk galaxies ($\sim 30\%$; Lütticke et al. 2000), including S0s (Aguerre et al. 2005), possess boxy or peanut-shaped bulges, which are believed to be not actual bulges at all but edge-on bars (e.g., Bureau & Freeman 1999; Athanassoula 2005; Kormendy & Barentine 2010). This confounds our usual notion of what a bulge is, even in galaxies that are traditionally viewed as bulge-dominated.

The bulge does not live in isolation but is intimately linked with an extended disk, whose prominence relative to the bulge varies along the Hubble sequence. While to first order the disk can be approximated by a single exponential profile, which arises as a natural consequence of viscous dissipation (e.g., Lin & Pringle 1987), in detail it, too, exhibits a plethora of morphologically distinct features that may provide insights into more global formation processes. Pronounced departures occur at both small and large radii. At small radii, typically over scales where the bulge begins to dominate, some disks exhibit a downturn compared to the inner extrapolation of the outer exponential profile; Freeman (1970) called these “Type II” profiles. The central regions of late-type spirals, on the other hand, often show excesses above the outer extrapolated disk (Böker et al. 2003). On large scales, van der Kruit (1979) first noticed that the disks of some spiral galaxies have a sharply truncated outer edge, as opposed to those that maintain a single exponential profile that merges smoothly with the sky background. By contrast, there is a growing population of disks that shows the opposite effect—an upturn rather than a downturn—at large radii (Erwin et al. 2005). Still others possess what appears to be a distinct, highly extended secondary disk of very low surface brightness (Thilker et al. 2005; Barth 2007). The physical origin of these secondary outer-disk structures is not known, but a very intriguing possibility is that they might trace material accumulated from a recent episode of “cold accretion.” According to numerical simulations of cosmological structure formation (Murali et al. 2002), nearly pristine, primordial gas should be constantly raining down on galactic disks as it condenses and cools from the hot halo, providing the raw material for continued disk building.

Lastly, non-axisymmetric perturbations in the disk play a primary role in transferring angular momentum, thereby accelerating secular evolution by redistributing the gas, and even the stars (e.g., Friedli & Benz 1993; Athanassoula 2003). There are three main sources of non-axisymmetric perturbations: bars and barlike oval structures, spiral arms, and large-scale tidal distortions. For example, the phenomenon of “lopsidedness,” which may be a manifestation of minor mergers, subtle tidal interactions, or cold gas accretion (e.g., Zaritsky & Rix 1997; Levine & Sparke 1998; Bournaud et al. 2005), would manifest itself as an $m = 1$ Fourier mode in azimuthal shape (e.g.,

Peng et al. 2010).

The phenomena outlined above have all been investigated in the past to varying degrees. Most previous studies have been quite restrictive, in terms of sample size, selection criteria, or wavelength coverage, often fine-tuned to address a narrow set of science goals. Notable examples of early CCD-based surveys include those of Kormendy (1985), Lauer (1985), and Schombert (1986) on early-type galaxies, and those of Kent (1985), Courteau (1996), and de Jong (1996) on spiral galaxies. More diverse samples exist, but they are often targeted to probe specific environments (e.g., the field: Jansen et al. 2000; nearby clusters: Gavazzi et al. 2003). Prior to the advent of modern all-sky surveys, two general-purpose samples of nearby galaxies have been widely used. Frei et al. (1996) assembled optical images for 113 bright ($B_T \lesssim 12.5$ mag) galaxies spanning a wide range of Hubble types; although no rigorous selection criteria were applied, this catalog has been extensively adopted for a variety of studies because the authors removed foreground stars from the images (Frei 1996) and released the digital atlas to the public. The Ohio State University Bright Spiral Galaxy Survey (OSUBSGS; Eskridge et al. 2002) enforced more rigorous selection criteria to define a set of 205 galaxies and expanded the photometric coverage to the near-infrared (NIR). The lack of early-types in OSUBSGS compelled subsequent attempts to extend the sample to include S0 systems, but only in the NIR (Laurikainen et al. 2005; Buta et al. 2006). Despite the utility of the Frei and OSUBSGS samples, they had limitations in terms of image quality and filter set. Both surveys employed imager-telescope systems that resulted in rather coarse pixel scales, $\sim 1''.2\text{--}1''.4$ pixel $^{-1}$ in the case of Frei, and $\sim 0''.4\text{--}0''.7$ pixel $^{-1}$ in the case of OSUBSGS. The image quality was especially heterogeneous for OSUBSGS, having been conducted using multiple detectors on six different telescopes.

The considerations outlined above motivated us to initiate the

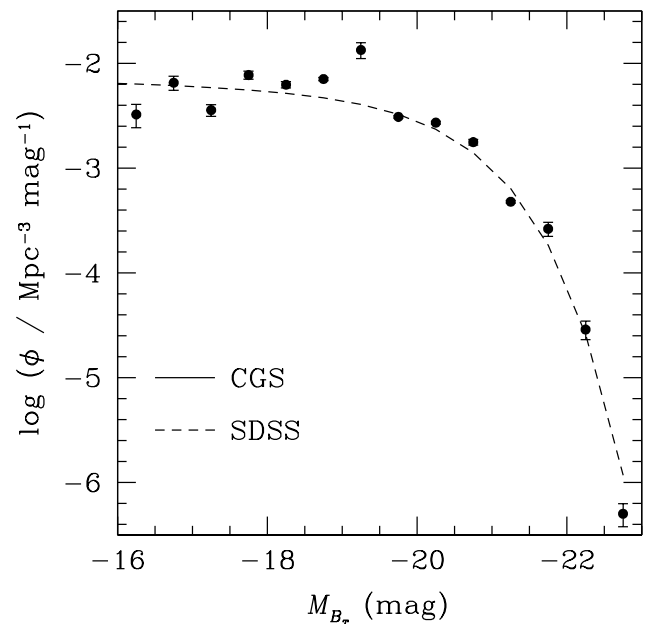


FIG. 1.— B -band luminosity function for the CGS sample, computed with the $1/V_{\max}$ method of Schmidt (1968). Superposed for comparison is the r -band luminosity function of $z \approx 0.1$ galaxies selected from SDSS (Blanton et al. 2003), shifted by $B-r = 0.67$ mag, the average color of an Sbc spiral (Fukugita et al. 1995), which is roughly the median Hubble type of the CGS sample. The overall agreement indicates that CGS provides an unbiased representation of the nearby galaxy population.

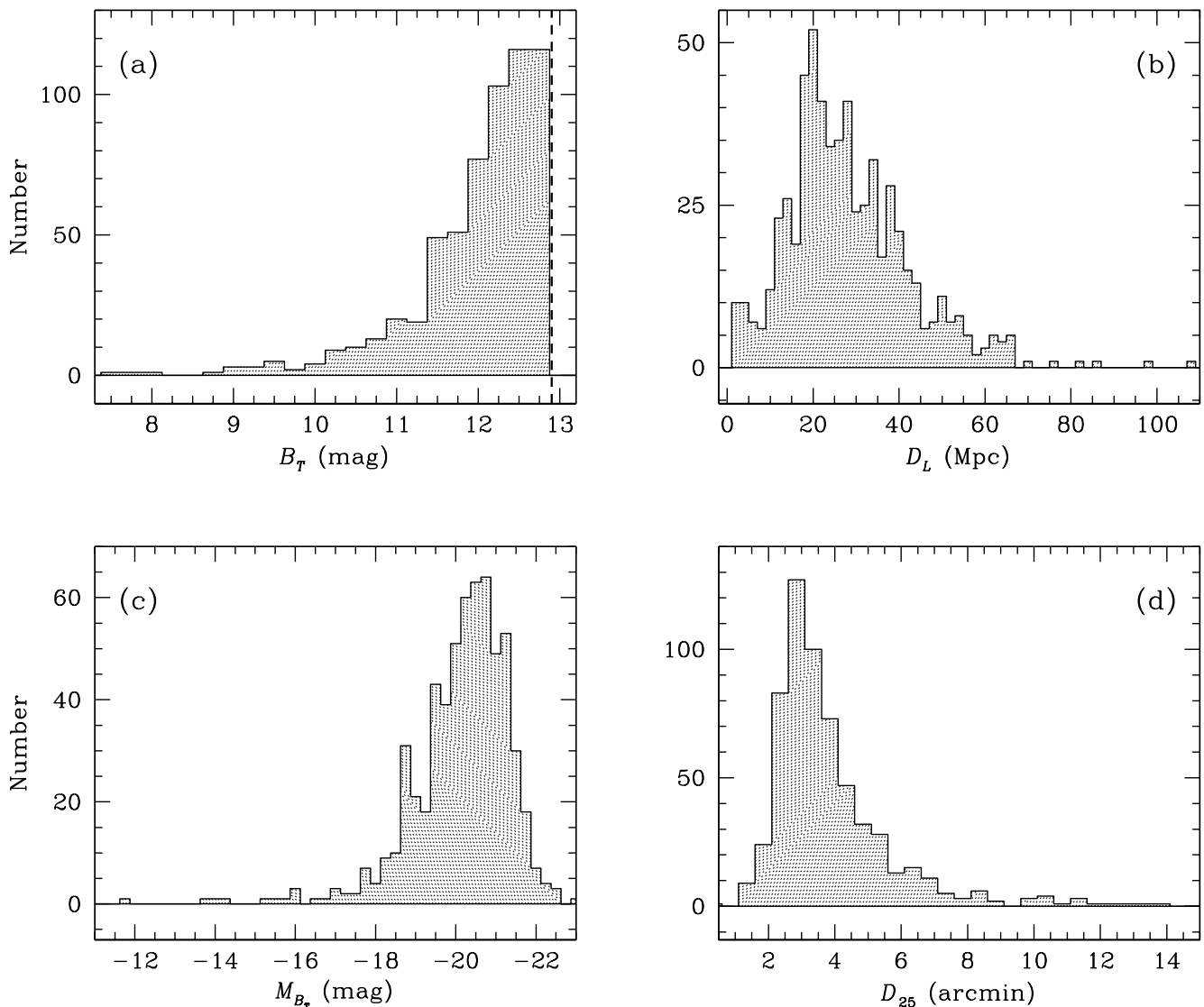


FIG. 2.— Basic properties of the CGS sample. Distribution of (a) total apparent B magnitude, (b) distances, (c) absolute B magnitude, corrected for Galactic extinction, and (d) B -band isophotal diameter at $\mu_B = 25$ mag arcsec $^{-2}$.

Carnegie-Irvine Galaxy Survey (CGS), a long-term program to investigate the photometric and spectroscopic properties of a large sample of nearby galaxies, using the facilities at Las Campanas Observatory. Given the availability of large databases such as the Sloan Digital Sky Survey (SDSS; York et al. 2000) or the Two Micron All-Sky Survey (2MASS; Skrutskie et al. 2006), it might seem counterintuitive that a new galaxy imaging survey is necessary. As described below, our optical images have significantly better resolution than SDSS images. Moreover, only 9% (56/605) of the galaxies in CGS overlap with the SDSS footprint: SDSS does not cover the vast majority of bright southern galaxies. As the images are a vital precursor to the spectroscopic component of the survey that we are planning to conduct, we have undertaken a uniform imaging program for CGS.

This paper gives a general overview of the optical imaging component of CGS and summarizes a suite of ancillary data that will be used in subsequent analyses of the survey. A companion paper by Li et al. (2011; hereafter Paper II) describes the analysis of the surface brightness profiles and isophotal parameters of the sample. Future papers will present the NIR imaging, de-

tailed structural decompositions of the galaxies, and scientific applications thereof.

2. SAMPLE

2.1. Survey Definition

To fully capture the wealth and range of the morphological properties of the local galaxy population, to maximize signal-to-noise ratio (S/N) and spatial resolution, and to ensure statistical completeness, we target a large, well-defined sample of the brightest objects optimally placed for Carnegie’s facilities at Las Campanas Observatory. We impose no selection according to galaxy morphology, size, or environment. The sample, consisting of 605 objects, is formally defined by $B_T \leq 12.9$ mag and $\delta < 0^\circ$. The completeness level of bright galaxies to this magnitude limit is essentially 100% (Paturel et al. 2003), yielding a sample roughly comparable in size to that of the Palomar survey of northern galaxies (Ho et al. 1995, 1997a), which is desirable for future comparisons between the two hemispheres. In practice, we select objects from the Third Reference Catalogue of Bright Galaxies (RC3; de Vaucouleurs et al. 1991),

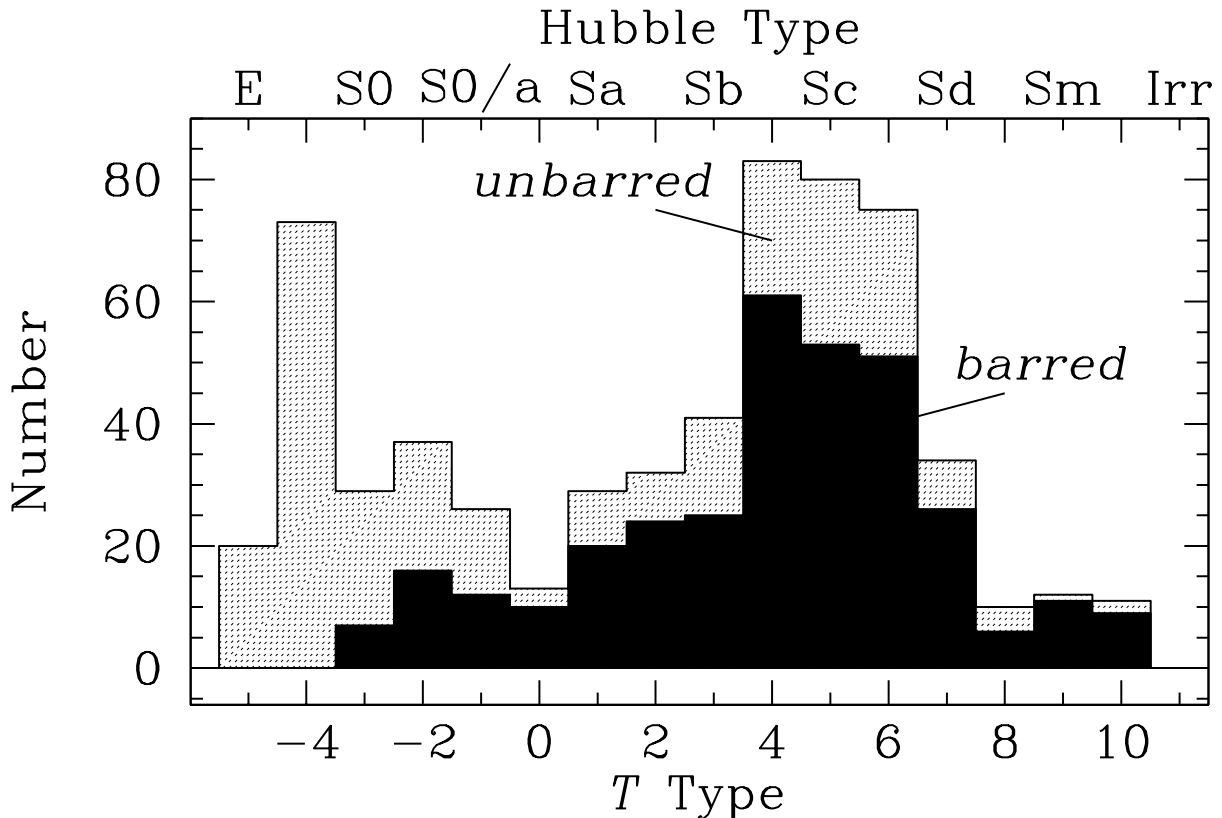


FIG. 3.— Distribution of morphological types in CGS. The bottom axis gives the type index T , and the corresponding Hubble types are shown on the top axis (E: $T = -5$ to -4 ; S0: -3 to -1 ; S0/a: 0; Sa: 1; Sb: 3; Sc: 5; Sd: 7; Sm: 9; Im: 10). Barred (B and AB) and unbarred galaxies are shown in filled and open histograms, respectively.

with the aid of the online database HyperLeda⁸ (Paturel et al. 2003).

CGS provides a fair, statistically unbiased representation of the local galaxy population over the absolute magnitude range $-16 \lesssim M_{Br} \lesssim -23$. This is illustrated in Figure 1, which shows the B -band luminosity function calculated using the $1/V_{\max}$ method of Schmidt (1968), compared with the r -band luminosity function of $z \approx 0.1$ galaxies derived from the SDSS by Blanton et al. (2003). In making this comparison, we assume a typical galaxy color for Sbc galaxies ($B-r = 0.67$ mag; Fukugita et al. 1995), which is approximately the median morphological type of CGS, and a Hubble constant of $H_0 = 73$ km s⁻¹ Mpc⁻¹. The two functions agree quite well, both in shape and in normalization. The relatively large fluctuations on the faint end of the luminosity function reflect the density inhomogeneities in the local volume.

Table 1 and Figure 2 summarize some of the basic parameters of the sample. Given the bright magnitude limit of the survey (Figure 2(a)), it is not surprising that most of the galaxies are quite nearby (median $D_L = 24.9$ Mpc; Figure 2(b)), luminous (median $M_{Br} = -20.2$ mag, corrected for Galactic extinction; Figure 2(c)), and angularly large (median B -band isophotal diameter $D_{25} = 3.3$; Figure 2(d)).

The sample spans the full range of Hubble types in the nearby universe (Figure 3), comprising 17% ellipticals, 18% S0 and

S0/a, 64% spirals, and 1% irregulars. A handful of well-known interacting systems (e.g., the “Antennae,” Centaurus A, NGC 2207) are included, but the vast majority of the sample have relatively undisturbed morphologies, although the RC3 classifications designate $\sim 16\%$ of the sample as “peculiar” in some form. As with the Palomar sample (Ho et al. 1997b), roughly 2/3 of the disk (S0 and spiral) galaxies are barred according to the classifications in the RC3, with the breakdown into strongly barred (SB) and weakly barred (SAB) being 37% and 29%, respectively. Approximately 10% have an outer ring or pseudoring (Buta & Crocker 1991).

In addition to the parent sample of 605 galaxies, Table 1 also lists 11 sources that were observed early in the survey prior to it being fully defined, but that now formally do not meet the magnitude limit of the survey. We include these extra objects for completeness, but they will be omitted from future statistical analyses.

3. OBSERVATIONS

All the images for CGS were taken with the du Pont 2.5 m telescope, during the period 2003 February to 2006 June, spread over 69 nights and nine observing runs. Table 2 gives a log of the observations. For the optical component of the survey, we employed the 2048×2048 Tek#5 CCD camera, which has a scale of 0.259 pixel⁻¹, sufficient to Nyquist sample the sub-

⁸<http://leda.univ-lyon1.fr>

arcsecond seeing often achieved with the du Pont telescope. The field of view of 8.9×8.9 is large enough to enclose most of the galaxies, which have a median isophotal diameter of $D_{25} = 3.3$ at a surface brightness level of $\mu_B = 25$ mag arcsec $^{-2}$ (Figure 2(d)), while still allowing adequate room for sky measurement. As discussed in Section 4.4, background subtraction is a key factor that limits the accuracy of structural decomposition and detection of faint outer features. A subset of the larger galaxies were reimaged at lower resolution with the Wide-field CCD, which has a field of view of $26' \times 26'$ and a scale of 0.77 pixel $^{-1}$; these data will be presented elsewhere.

Each galaxy was imaged in the Johnson B and V and Kron-Cousins R and I filters, typically for total integration times of 12, 6, 4, and 6 minutes, respectively, split into two equal-length exposures to facilitate rejection of cosmic rays and to mitigate saturation. The centers of some galaxies were still saturated even with these integration times, and we took short (~ 10 – 60 s) exposures to obtain unsaturated images of the core. In total, over 6000 science images were collected. Standard calibration frames for optical CCD imaging were taken, including a series of bias frames, dark frames, and flat fields from the illuminated dome and the twilight sky. During clear nights, we observed a number of photometric standard star fields from γ , covering stars with a range of colors and tracking over a range of air-masses.

A significant fraction of the sample was also imaged in the K_s ($2.2 \mu\text{m}$) band using the Wide-field Infrared Camera, a cryogenically cooled mosaic of four 1024×1024 arrays that delivers $13' \times 13'$ images with excellent image quality (scale 0.2 pixel $^{-1}$). These observations will be presented elsewhere.

4. DATA REDUCTIONS

4.1. Basic Processing

The initial processing follows standard steps for CCD data reduction within the IRAF⁹ environment, using tasks within *ccdproc*, which include trimming, overscan correction, bias subtraction, and flat fielding. Dark current subtraction is unnecessary. We took dark frames with integration times comparable to those of the longest science exposures, but the dark current always turns out to be negligible. For each night of each observing run, we generate a master bias frame by averaging a large number (typically ~ 20) of individual bias frames. Similarly, we create a master flat-field frame with high S/N by combining a series (typically ~ 6 – 10 per filter) of domeflats and twiflats. Through experimentation, we found that the twiflats produce more uniform illumination than the domeflats for the B and V images, whereas the domeflats are more effective for the R and I images. A small fraction of the flats contained dust specks that introduced “doughnut” features into the flattened frames; roughly $\sim 4\%$ of the science images were affected by this. The flattened I -band images contain subtle, residual fringe patterns with amplitudes (peak to trough) at the level of $\sim 1\%$ – 2% . We remove these by subtracting an optimally scaled fringe frame with a mean zero background, which was constructed by median combining a total of 36 sky images collected over many observing runs. The fringe pattern proved to be remarkably stable throughout the course of the survey. Apart from a couple of partially dead columns near the center of the chip, the Tek5

CCD is relatively clean cosmetically. We generate a mask for these and other less conspicuous defective regions, and use it for local interpolation to correct the bad pixels. Finally, we use an IDL version of van Dokkum’s (2001) L.A.Cosmic routine to correct the pixels affected by cosmic ray hits and satellite trails; any remaining imperfections were further edited manually.

Next, we shift and align the flattened, cleaned images in each filter to a common reference frame defined by the I -band image, which generally has the sharpest seeing and is least affected by possible dust obscuration. Multiple images taken with the same filter were combined. We carefully examine the images for possible saturation near the core of the galaxy and replace any saturated pixels with their appropriately scaled counterparts from the short-exposure images. We determine the proper scale factor by comparing the background-subtracted, integrated counts of bright, isolated field stars that are unsaturated in both the long and short exposures. The affected regions are generally small, spanning a diameter of only ~ 10 pixels. As this is not significantly larger than the point-spread function (PSF), this procedure has a negligible impact on any of our subsequent scientific analysis. For convenience, we flip the images so that north points up and east to the left. Lastly, we use the *Astrometry.net* (Lang et al. 2010) software¹⁰ to solve for the World Coordinate System (WCS) coordinates of each image and store them in the FITS header.

4.2. Photometric Calibration

A little more than half of the CGS galaxies were observed under photometric conditions, as determined from observations of Landolt (1992) standard stars. We measure the photometry of the stars using a circular aperture with a fixed radius of $7''$, to mimic as closely as possible Landolt’s measurements. We determine the local sky of each star from a 5 pixel wide annulus outside that aperture, using only sky pixels (i.e., avoiding any nearby neighboring stars). The median photometric errors (Table 2, Column 9) for the photometric nights are 0.08, 0.04, 0.03, and 0.04 mag for the B , V , R , and I band, respectively. The images calibrated in this manner have the header keyword `ZPT_LAN`.

For the non-photometric observations, we adopt an indirect approach that allows us to obtain a less accurate, but still useful, photometric calibration. Our strategy is to bootstrap the instrumental magnitudes of the brighter stars within each CCD field to their corresponding photographic magnitudes as published in the second-generation *Hubble Space Telescope* Guide Star Catalog (GSC2.3; Lasker et al. 2008). We derive the transformation between the GSC photographic bandpasses and our standard $BVRI$ magnitudes using the subset of field stars that were observed by us under photometric conditions. The GSC contains astrometry, photometry, and object classification for nearly a million objects. The photometry for the southern hemisphere is given primarily in three photographic bandpasses, B_J , R_F , and I_N . The typical photometric error for the stellar objects in the GSC, depending on the magnitude and passband, is 0.13–0.22 mag (Lasker et al. 2008).

Starting with the list of WCS coordinates extracted for the field stars in each CCD image, we use the VizieR server¹¹ to query the GSC for objects classified therein as stellar (`class`

⁹IRAF is distributed by the National Optical Astronomy Observatory, which is operated by the Association of Universities for Research in Astronomy (AURA), Inc., under cooperative agreement with the National Science Foundation.

¹⁰<http://www.astrometry.net>

¹¹<http://vizier.cfa.harvard.edu/viz-bin/VizieR>

= 0). We eliminate saturated objects and stars fainter than $B \approx 22$ mag. To properly compare our instrumental magnitudes with the GSC magnitudes, it is critical that we follow as closely as possible the methodology that the GSC used to derive their photometry. We cannot use conventional methods of stellar aperture photometry (e.g., using standard tasks in IRAF). As outlined in Lasker et al. (2008), the procedures used in the GSC for object detection, flux measurement, sky determination, and source deblending in the case of crowded fields (Beard & MacGillivray 1990) follow very closely those implemented in the SExtractor package (Bertin & Arnouts 1996). We therefore use SExtractor to measure the stars in our CGS images. We manually performed aperture photometry of a number of isolated stars to confirm that the SExtractor-based measurements are reliable, to better than 0.02 mag.

We intercalibrate the CGS and GSC photometric scales using data from a night with exceptional photometric stability, during which the open cluster M67 was observed. Our photometry for M67 agrees very well with that published by Montgomery et al. (1993), to better than 0.01 mag, for all filters. Using a set of 500–600 field stars selected from the science images observed throughout the course of that night, we derive a set of transformation equations between the GSC photometric bandpasses (B_J , R_F , and I_N) and our standard bandpasses (B , V , R , and I). The fitting was done with the IDL function *ladfit*, which uses a robust least absolute deviation method and is not sensitive to outliers. The transformation equations and residual scatter (σ) (in magnitudes) for each filter are as follows:

$$B = B_J + 0.2807 - 0.1365(B_J - R_F) \quad \sigma = 0.2088 \quad (1)$$

$$B = B_J + 0.1499 + 3.239 \times 10^{-5}(B_J - I_N) \quad \sigma = 0.2490 \quad (2)$$

$$B = 0.1489 + 1.0001B_J \quad \sigma = 0.2597 \quad (3)$$

$$B = R_F + 0.9700 + 0.8888(R_F - I_N) \quad \sigma = 0.2982 \quad (4)$$

$$B = 0.4508 + 1.0468R_F \quad \sigma = 0.3832 \quad (5)$$

$$B = 0.8471 + 1.0488I_N \quad \sigma = 0.6058 \quad (6)$$

$$V = B_J + 0.1512 - 0.6625(B_J - R_F) \quad \sigma = 0.1140 \quad (7)$$

$$V = R_F + 0.4658 + 0.2279(R_F - I_N) \quad \sigma = 0.1721 \quad (8)$$

$$V = B_J + 0.0060 - 0.3982(B_J - I_N) \quad \sigma = 0.1760 \quad (9)$$

$$V = 0.8077 + 0.9825R_F \quad \sigma = 0.1828 \quad (10)$$

$$V = 0.7665 + 0.9232B_J \quad \sigma = 0.2775 \quad (11)$$

$$V = 0.0875 + 1.0499I_N \quad \sigma = 0.3780 \quad (12)$$

$$R = R_F + 0.1380 - 0.2667(R_F - I_N) \quad \sigma = 0.0976 \quad (13)$$

$$R = 1.2166 + 0.9286R_F \quad \sigma = 0.1121 \quad (14)$$

$$R = I_N - 0.0954 + 0.3353(B_J - I_N) \quad \sigma = 0.1257 \quad (15)$$

$$R = R_F - 0.0208 + 0.0551(B_J - R_F) \quad \sigma = 0.1264 \quad (16)$$

$$R = -0.2960 + 1.0441I_N \quad \sigma = 0.2301 \quad (17)$$

$$R = 1.5288 + 0.8546B_J \quad \sigma = 0.3509 \quad (18)$$

$$I = I_N - 0.1119 + 0.0931(R_F - I_N) \quad \sigma = 0.0924 \quad (19)$$

$$I = I_N - 0.0709 + 0.0152(B_J - I_N) \quad \sigma = 0.1073 \quad (20)$$

$$I = -0.1713 + 1.0079I_N \quad \sigma = 0.1164 \quad (21)$$

$$I = R_F - 0.2323 - 0.2276(B_J - R_F) \quad \sigma = 0.2000 \quad (22)$$

$$I = 1.6690 + 0.8728R_F \quad \sigma = 0.2244 \quad (23)$$

$$I = 2.5445 + 0.7739B_J \quad \sigma = 0.4543 \quad (24)$$

For any given CCD frame, the calibration equation we choose depends on which GSC bandpasses are available for that particular field; all else being equal, we select the transformation equation that has the smallest scatter. The images calibrated in this manner have the keyword ZPT_GSC in the header. The median photometric uncertainty (Table 2, Column 9) of the GSC-based magnitudes, which is dominated by the error in the above fitting equations, is 0.21, 0.11, 0.098, and 0.092 mag for the B , V , R , and I band, respectively.

4.3. Masks and Point-spread Function

Many aspects of the survey require that we exclude signal contributed by unrelated objects, such as foreground stars and background galaxies. This is achieved by creating a mask that properly identifies the affected pixels. We begin by running SExtractor to identify all the objects in the image and classify them into stellar and nonstellar sources based on their compactness relative to the seeing. Through experimentation, we find that a “class parameter” larger than 0.3 effectively isolates the stars from the resolved objects. During this initial step, we deliberately set the contrast parameter to a moderate value (we set the threshold to be 3σ above the background) so that galaxies with substantial internal structure (e.g., spirals and irregulars) do not get broken up into multiple pieces. This, in turn, implies that SExtractor will miss fainter stars that might be superposed on the main body of the central galaxy. We carefully examine each image visually and manually add additional objects to the segmentation image if necessary. Next, two segmentation images are created, one to isolate the unsaturated stellar objects and the other the nonstellar objects, which include background galaxies and saturated stars (including their bleed trails, if present). Because we set the contrast parameter to a conservative level, the segmentation images identify only the bright core regions of the objects to be masked and often miss their fainter outer halos, which can be substantial, especially for bright stars in the I band. To account for these regions, we need to “grow” the segmentation image of each object. From trial and error, we find that a growth of 8 pixels in radius is optimal for the stellar objects. For the nonstellar objects, we distinguish between two regimes. A growth radius of 5 pixels is sufficient for bright bleed trails. For the fainter, more extended halos, we find that the growth radius can be approximated by $R = \min[15, 1.5\sqrt{N/\pi}]$, where N is the number of pixels contained in the original segmentation image. Lastly, we stack together the masks of each individual filter to create a master mask for each galaxy, which is then used in all subsequent analysis, to ensure that all filters reference the same set of pixels.

We use the IRAF task *psf* within the *daophot* package and the bright, unsaturated stars identified by SExtractor in the previous step to build an empirical PSF for each image. The PSF image is a key ingredient in much of our analysis, including generation of the structure maps (Section 5) and bulge-to-disk decomposition (S. Huang et al., in preparation).

4.4. Image Quality

The bulk of the CGS observations have fairly good image quality. The seeing, as estimated from the full width at half-maximum (FWHM) of the radial profiles of bright, unsaturated stars, ranges between $\sim 0''.5$, the limit we can measure given

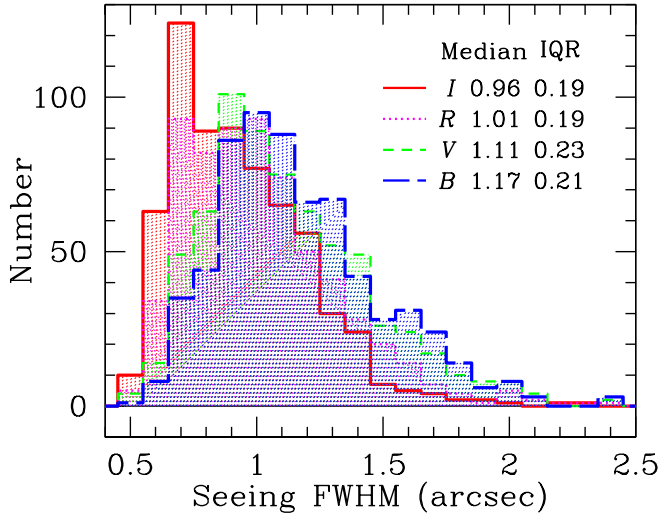


FIG. 4.— Distribution of seeing values for the CGS images, shown separately for each of the four filters. The legend gives the median and interquartile (IQR) range of each histogram.

the pixel scale of our detector, to $\sim 2''$, with a median value of $1''.17$, $1''.11$, $1''.01$, and $0''.96$ in the B , V , R , and I band, respectively (Figure 4). The main factors that limit the surface brightness sensitivity of the images stem from residual errors in flat fielding and uncertainties in sky determination. We have discovered that large variations in the ambient temperature and humidity throughout the night can occasionally produce water condensation on the surfaces of some of the filters. This effect imprints large-scale flat-fielding errors at the level of $\sim 1\%$. Background gradients of a roughly similar magnitude are sometimes induced by scattered light from very bright stars, either within or just outside the science frame. These anomalies can be mitigated by fitting a two-dimensional polynomial function to the background pixels (Noordermeer & van der Hulst 2007; Barazza et al. 2008; Erwin et al. 2008). A second-order polynomial function usually suffices, but in some cases the order of the polynomial may need to be as high as 5. The fitting regions are source-free pixels far from the main galaxy, selected from the image after convolving it with a Gaussian with FWHM $\approx 4''$ – $5''$ to accentuate low-spatial frequency features. This correction typically improves the flatness of the images by about a factor of 2, from $\sim 1\%$ to $\sim 0.6\%$. Once the background is flat, determining its value is relatively straightforward because most of the survey galaxies have sizes (median $D_{25} = 3''.3$; Figure 2(d)) that fit comfortably within the field of view of the detector ($8''.9 \times 8''.9$). The larger galaxies ($D_{25} \gtrsim 5''$ – $6''$; $\sim 15\%$ of the sample), however, pose a challenge, and we are forced to implement an indirect, less reliable strategy for sky subtraction (Paper II). The surface brightness depth of the images (Table 2, Column 10), which we define to be the isophotal intensity that is 1σ above the sky rms, has a median value of $\mu \approx 27.5$, 26.9 , 26.4 , and 25.3 mag arcsec $^{-2}$ in the B , V , R , and I bands, respectively.

5. IMAGES

In anticipation of future applications of the survey, we prepare several different renditions of the digital images, which are described below. The full image atlas for the 605 galaxies in CGS (including the 11 “extras”) is given in the Appendix, as Figures 7.1–7.616, as well as on the project Web site <http://cgs.obs.carnegiescience.edu>.

- *Color composites.* We generate three-color composites from the B , V , and I images by applying an arcsinh stretch (Lupton et al. 2004) to each of these bands and then using them to populate the blue, green, and red channels of the color image. The arcsinh stretch is particularly effective in viewing a broad dynamic range of structure.
- *Star-cleaned images.* A variety of scientific applications can benefit from galaxy images that are free from contamination by foreground stars and background galaxies. An example would be using nearby galaxies as templates to simulate higher redshift observations. Our procedure to “clean” the galaxy images begins by using the object mask created from SExtractor (Section 4.3) to identify all the stellar and nonstellar objects that need to be removed. For every given image, we use the task *all-star* to fit the empirical PSF appropriate for that image to all the unsaturated stars and subtract them. As the PSF varies slightly across the field, the subtraction is imperfect and small residuals often remain around the positions of bright stars. To improve the cosmetic appearance of the images, we devised the following scheme to locally interpolate over the residuals. For every star, we fit a two-dimensional function to a 5 pixel wide annular region immediately exterior to its grown segmentation image. We find the exponential function to be quite effective—more so than a tilted plane or a second-order polynomial—as it has enough flexibility to handle steep local gradients often encountered for complex galaxy backgrounds. Each pixel within the segmentation image is then compared with the best-fitting function value at that position. If they differ by more than 2 times the mean value of the differences between the pixels in the background annulus and the best-fit pixel values there, it gets replaced with the best-fit pixel value. We add noise to the replaced pixel, drawn randomly, using the IDL function *randomu*, from the distribution of residuals calculated from the background annulus. The non-stellar objects are treated in exactly the same manner, except that for these PSF subtraction is unnecessary.

The above procedure works very effectively most of the time, as illustrated for a couple of examples in the top and middle panels of Figure 5. It performs less successfully for heavily saturated bright stars that are directly superposed on the science target, especially those with prominent bleed trails, as shown in the example in the bottom panel of the figure. Under these circumstances, almost any local interpolation scheme will produce a highly compromised result. For these situations, we extract, in conjunction with the SExtractor object mask, the surface brightness profile and isophotal parameters of the galaxy using the IRAF task *ellipse*, as described in Paper II. These isophotes then serve as the basis for building a smooth representation of the intrinsic light distribution of the galaxy using the task *bmodel*, which, when combined with the original object mask, gives a reasonably realistic estimate of the underlying galaxy light affected by the masked regions. The corrupted regions were replaced with the corresponding pixel values from the model image, and Poisson noise is added. If a saturated star falls near the center of the galaxy, we

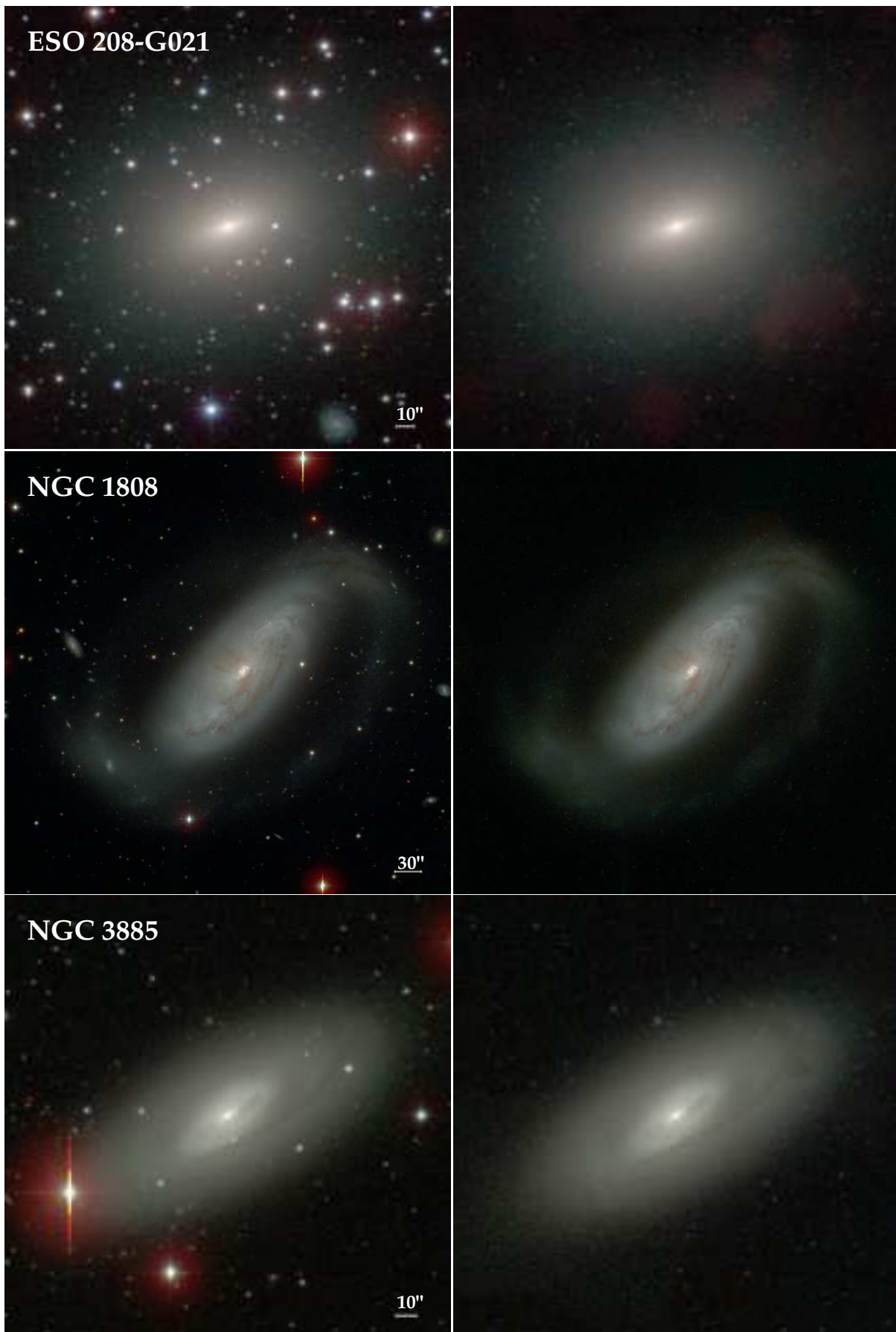


FIG. 5.— Examples to illustrate our technique to clean the images of foreground stars and background galaxies. We use the three-band composite for both the original and star-cleaned images, displayed using an arcsinh stretch.

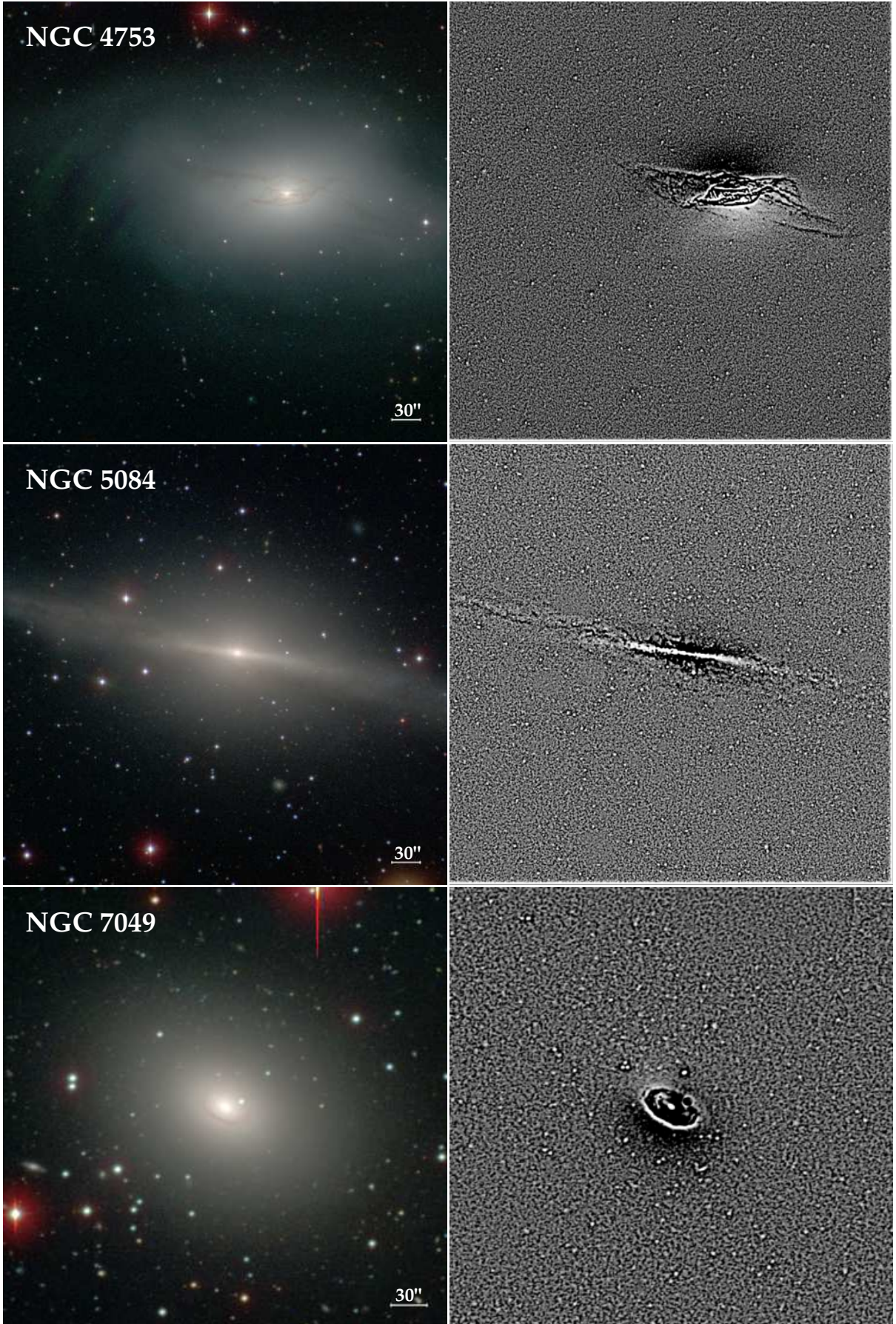


FIG. 6.— Examples to illustrate the ability of the structure maps to bring out fine structure. The left panel shows the BVI color composite on an arcsinh stretch, and the right panel shows the structure map of the star-cleaned B -band image on a linear stretch.

first attempt to replace it with an unsaturated version using the short exposure, following the same procedure for treating saturated cores. We apply this alternative procedure only to those regions wherein our local interpolation scheme fails to do a good job.

- *Stacked images.* In an effort to improve the S/N and to enhance the visibility of features with low surface brightness, we create a stacked image for each galaxy by combining the processed individual images from each of the four filters. We did not match the seeing among the images, as such a process, which involves smoothing, would alter the noise properties of the images; this is not critical for the stacked images because we are mainly interested in emphasizing diffuse features, which are insensitive to the seeing. This technique has been used to detect faint structures in both nearby (van Dokkum 2005) and distant (Gawiser et al. 2006) galaxies. As in ?, their Appendix A), we weight the data by S/N^2 to optimize for surface brightness, after first normalizing all the images so that 1 count corresponds to $AB = 30$ mag. We follow Frei & Gunn (1994) to convert our *BVRI* magnitudes to the AB system. To compute the weights, we determine the signal from the mean flux of 10–20 bright stars in common among the different images, and the noise from the standard deviation of the sky pixels.
- *Structure maps.* There are a variety of ways to spatially filter an image to emphasize structures on different scales. The structure map technique developed by Pogge & Martini (2002) is particularly effective in enhancing spatial variations on the smallest resolvable scales, namely that of the PSF. For every image in the survey, we calculate the structure map S , defined as

$$S = \left(\frac{I}{I \otimes P} \right) \otimes P^t, \quad (25)$$

where I is the star-cleaned image taken in a particular filter, P is the corresponding PSF image (see Section 4.3), P^t is the transpose of the PSF, such that $P^t(x, y) = P(-x, -y)$, and the operator \otimes denotes convolution. Figure 6 illustrates the utility of the structure map in highlighting small-scale spatial variations in an image.

- *Color index maps.* Our multi-filter data set allows us to study two-dimensional distributions of color, which trace spatial variations of dust and stellar content. A color index map is generated simply by dividing two registered images taken in the relevant filters, after sky subtraction and matching the two images to a common PSF. We convolve the image with the better seeing with a two-dimensional Gaussian function whose width is the quadrature difference of the two seeing values. We create the following set of color index maps: $B-V$, $B-R$, $B-I$, $V-I$, and $R-I$.

6. TABULATED DATA

6.1. Isophotal and Photometric Parameters Derived from CGS

Paper II presents the brightness profiles and isophotal parameters of the survey. A number of basic, but nonetheless useful,

global parameters for the galaxies can be derived from those data. We summarize them here. The advantage of our measurements is that they are derived in a uniform, self-consistent manner.

Table 3 lists several size measurements derived from the *B*-band images. We choose this bandpass because it closely matches most published measurements in the literature. The quantities R_{20} , R_{50} , and R_{80} are the radii enclosing, respectively, 20%, 50%, and 80% of the total flux, which is calculated from integrating the surface brightness profile generated using the IRAF task *ellipse* (see Paper II). We define the concentration parameter as $C = R_{80}/R_{20}$. The isophotal diameters, measured at a surface brightness level of $\mu_B = 25.0$ and 26.5 mag arcsec $^{-2}$, are given as D_{25} and $D_{26.5}$, while D_{25}^c and $D_{26.5}^c$ are the corresponding values corrected for Galactic extinction (A_B in Table 1, taken from Schlegel et al. (1998) and inclination effect, following the prescription of Bottinelli et al. (1995). For galaxies with morphological types $T > -3.5$, we derive the inclination angle of the disk, i , using Hubble’s (1926) formula

$$\cos^2 i = \frac{(1-e)^2 - q_0^2}{1 - q_0^2}, \quad (26)$$

which makes use of the apparent ellipticity (e) of the outer regions of the disk. The intrinsic flattening of the disk depends mildly on morphological type (Paturel et al. 1997), but for simplicity we adopt a constant value of $q_0 = 0.2$ (Noordermeer & van der Hulst 2007). The position angle (PA) of the photometric major axis, east of north, is also given. Unlike the other parameters in this table, both e and PA are measured from the *I*-band image rather than from the *B*-band image in order to minimize possible distortions from dust or patchy regions of star formation. These quantities are determined from the outer regions of the galaxy—far enough to be insensitive to the bulge and bar but not so much so to be affected by lopsidedness in the outer disk or imperfect flat fielding—where they usually converge to a constant value. The listed uncertainties represent the standard deviation about the mean. In cases where e and PA do not converge, we estimate them visually from the best-fitting isophotes at large radii. Lastly, we tabulate Σ , the sum of the rms fluctuations in the structure map of the *B*-band image, which gives a useful relative measure of the degree of high-spatial frequency fluctuations present in the image.

Table 4 presents *BVRI* integrated magnitudes derived from the star-cleaned images (Section 5). Two measurements are made: m_{25} pertains to the total apparent magnitude within the $\mu = 25$ mag arcsec $^{-2}$ isophote, whereas m_{tot} derives from the total flux within the largest isophote fitted to the image. The main uncertainty of the magnitudes comes from the uncertainty of the photometry zero point, with little contribution from sky error or Poisson noise. For convenience, we provide the absolute magnitudes in the *B* band, corrected for Galactic extinction as given in Table 1 and adopting the luminosity distances therein.

Table 5 lists μ_e , the surface brightness measured at the effective or half-light radius R_{50} , for each of the four filters.

6.2. Photometric Data from the Literature

Table 6 assembles multiwavelength photometric data from several large galaxy catalogs. The listed values represent total integrated fluxes for the entire galaxy. Instead of collecting data from any available literature source, we restrict our selection to only a few well-documented, homogeneous compilations. For

the ultraviolet, we select FUV (1350–1750 Å) and NUV (1750–2800 Å) measurements principally from the *Galaxy Evolution Explorer* (GALEX) atlases of Buat et al. (2007), Dale et al. (2007), and Gil de Paz et al. (2007). At present, only $\sim 16\%$ of our sample has published GALEX data, although the situation will soon improve substantially with the recent completion of the All-Sky Imaging Survey¹². To extend the optical coverage blueward of the *B* band, we searched HyperLeda for *U*-band (3500 Å) photometry, which is available for 63% of the sample. The most complete coverage is in the near-infrared (*J*, *H*, and *K_s* bands) and far-infrared (12, 25, 60, and 100 μm); $\sim 95\%$ of the galaxies are included in the Two Micron All-Sky Survey (2MASS; Skrutskie et al. 2006) and in the source catalogs of the *Infrared Astronomical Satellite* (IRAS). Because our galaxies are angularly large, care is taken to choose photometry derived from studies that properly treat extended sources (Jarrett et al. 2003; Sanders et al. 2003). In addition to the flux densities in the individual IRAS bands, we also give the parameter FIR, defined as $1.26 \times 10^{-14} (2.58S_{60} + S_{100}) \text{ W m}^{-2}$, which approximates well the total flux between 42.5 and 122.5 μm (Helou et al. 1988; Rice et al. 1988). To date, $\sim 70\%$ (406/605) of our sample have been observed at 3.6 and 4.5 μm using the Infrared Array Camera on *Spitzer*. Roughly 60% of our sample overlaps with the *Spitzer* Survey of Stellar Structure in Galaxies (S⁴G; Sheth et al. 2010). We intend to incorporate these mid-infrared data into CGS in the future.

6.3. Kinematics, Environment, and Gas Content

Three categories of data are included in Table 7. We assemble from HyperLeda information on the internal kinematics of the galaxies, namely the apparent maximum rotation velocity of the gas (V_{max}), the maximum rotation velocity corrected for inclination (V_{rot}), and the central stellar velocity dispersion (σ_*).

Next, we provide three environmental indicators. Using the facilities in the NASA/IPAC Extragalactic Database (NED)¹³, we search for candidate neighbors within a radius of 750 kpc. (NED restricts environmental searches to a maximum radius of 600', and, for a handful of objects, this corresponds to less than 750 kpc.) We calculate the projected angular separation, $\Delta\theta$, in units of the diameter D_{25} (Table 3), to the nearest neighboring galaxy having an apparent magnitude brighter than $B_T + 1.5$ mag and a systemic velocity within $v_h \pm 500 \text{ km s}^{-1}$. These criteria select sizable objects, with luminosity ratios of at least 4:1, which are likely to be physically associated companions. When no neighbor that satisfies the above criteria is found, $\Delta\theta$ is given as a lower limit. Following Bournaud et al. (2005), we also calculate the tidal parameter

$$t_p \equiv \log \left\{ \sum_i \frac{M_i}{M_0} \left(\frac{R_0}{D_i} \right)^3 \right\}, \quad (27)$$

where M_0 and R_0 are the mass and size of the galaxy in question, M_i and D_i are the mass and projected separation of neighbor i , and the summation is performed over all neighbors with systemic velocities within $v_h \pm 500 \text{ km s}^{-1}$ in a region with a radius of 750 kpc. For simplicity, we assume that all galaxies have the same mass-to-light ratio and adopt the Johnson *B* band as the reference filter. To the extent possible, we convert photometry listed in other bandpasses to the *B* band, assuming colors typical of an Sbc galaxy (Fukugita et al. 1995;

Peletier & de Grijs 1998). An uncertainty of up to 0.3 mag, which encompasses the extreme range of plausible *K* corrections for different Hubble types, introduces an error of 0.12 dex in t_p . We set $R_0 = 0.5D_{25}$. Lastly, we indicate whether the galaxy belongs to the field or to a known galaxy group or cluster. The main cluster in the southern sky pertinent to CGS is Fornax, and we draw our membership identifications from Ferguson (1989) and Ferguson & Sandage (1990). Most of the group assignments come from the 2MASS-based group catalog of Crook et al. (2007).

The last two columns of Table 7 summarize the neutral hydrogen content. The H I (21 cm) flux, in magnitude units, is defined such that $m_{21}^c = -2.5 \log f + 17.40$, where the integrated line flux f is in units of Jy km s^{-1} . We adopted the correction for self-absorption as given in HyperLeda. In the optically thin limit, the H I mass is given by

$$M_{\text{HI}} = 2.36 \times 10^5 D_L^2 f M_{\odot}, \quad (28)$$

where D_L is the luminosity distance expressed in Mpc (Roberts 1962). We list the H I mass normalized to the total *B*-band luminosity, using magnitudes from Table 1, corrected for Galactic extinction.

7. SUMMARY

The CGS is a long-term effort to investigate the detailed physical properties of a magnitude-limited ($B_T < 12.9$ mag), statistically complete sample of 605 galaxies in the southern hemisphere ($\delta < 0^\circ$). The present-day constitution of a galaxy encodes rich clues to its formation mechanism and evolutionary pathway. CGS aims to secure the necessary data to quantify the main structural components, stellar content, kinematics, and level of nuclear activity in a large, representative set of local galaxies spanning a wide range of morphological type, mass, and environment.

This paper, the first in a series, gives a broad overview of the survey, defines the sample selection, and describes the optical imaging component of the program. Over the course of 69 nights, we collected more than 6000 *BVRI* science images using the du Pont 2.5 m telescope at Las Campanas Observatory. The image quality is generally quite good: half of the images were taken under sub-arcsecond seeing conditions. The CCD camera has a field of view (8.9×8.9) sufficient to yield reasonably accurate sky subtraction for most of the sample, allowing us to reach a median surface brightness limit of $\sim 27.5, 26.9, 26.4$, and $25.3 \text{ mag arcsec}^{-2}$ in the *B*, *V*, *R*, and *I* bands, respectively. Although only roughly half of the data were taken under photometric conditions, we are able to devise a calibration strategy to establish a photometric zero point for the rest of the survey.

We apply post-processing steps to generate several data products from the images that will be useful for later science applications: (1) three-band color composites; (2) star-cleaned images that can be used as templates to simulate high-redshift observations; (3) stacked *BVRI* images to enhance the surface brightness sensitivity; (4) structure maps to emphasize high-spatial frequency features such as spiral arms, dust lanes, and nuclear disks; and (5) color index maps to trace the spatial variation of stellar content and dust reddening. An image atlas showcases these digital images for each galaxy. To facilitate subsequent scientific analyses of the sample, we collect an extensive set of ancillary data, including optical isophotal and

¹²<http://galex.stsci.edu/GR6>

¹³<http://nedwww.ipac.caltech.edu>

photometric parameters derived from CGS itself and published information on multiwavelength photometry, internal kinematics, environmental variables, and neutral hydrogen content. We pay particular attention to ensuring the accuracy and homogeneity of these databases.

Paper II (Li et al. 2011) presents the one-dimensional isophotal analysis for the survey, including radial profiles of surface brightness, color, and geometric parameters. Fourier decomposition of the isophotes yields quantitative measures of the strength of bars, spiral arms, and global asymmetry. Our team is actively using the CGS data for a number of other applications, including investigations of disk truncations, lopsidedness, color gradients, pseudobulges, and the fundamental plane of spheroids. We are applying GALFIT (Peng et al. 2002, 2010) to perform full two-dimensional decomposition of the galaxies to obtain robust structural parameters for bulges, bars, disks, and other photometrically distinct subcomponents, and to quantify non-axisymmetric structures such as spiral arms and tidal distortions.

To maximize the science return of the survey, we intend to make accessible to the community all the final, fully reduced, calibrated science images, their associated ancillary products (object masks, PSF images, star-cleaned images, etc.), as well as higher-level science derivatives resulting from the one-dimensional and two-dimensional analysis. We will strive

to release these data, as they become available, roughly within one year of their initial publication. Please consult the project Web site (<http://cgs.obs.carnegiescience.edu>) for updates.

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TABLE 1: THE SAMPLE

Index	Name	α (J2000)	δ (J2000)	B_T	T	Leda	RC3	v_h	D_L	A_B	Notes
(1)	(2)	(h m s)	($^{\circ}$ $'$ $''$)	(mag)	Type	Type	Type	(km s $^{-1}$)	(Mpc)	(mag)	(12)
1	ESO 009-G010	17 39 31.76	-85 18 37.3	12.70	3.9	Sbc	SA(s)bc:	2421	33.9	0.613	
2	ESO 027-G001	21 52 26.37	-81 31 51.1	12.78	5.0	SBc	SB(s)c	2559	18.3	0.860	
3	ESO 027-G008	22 23 04.19	-79 59 49.1	12.96	5.0	SBc	SB(s)c?	2491	31.0	0.447	extra
4	ESO 056-G115	05 23 34.52	-69 45 22.1	1.92	9.0	SBm	SB(s)m	320	0.050	0.324	LMC, NED
5	ESO 060-G019	08 57 26.71	-69 03 36.5	12.80	6.9	SBcd	SB(s)d	1443	18.5	0.433	
6	ESO 091-G003	09 13 31.59	-63 37 35.1	13.00	2.3	Sab	SA(rs)ab	1906	20.8	0.974	extra
7	ESO 097-G013	14 13 09.95	-65 20 21.2	12.03	3.4	Sb	SA(s)b:	439	4.2	6.276	Circinus, NED
8	ESO 121-G006	06 07 29.69	-61 48 26.9	10.74	5.1	Sc	Sc pec: spin	1211	19.1	0.221	
9	ESO 121-G026	06 21 38.68	-59 44 23.8	12.70	3.8	SBbc	SB(rs)bc	2264	40.7	0.196	
10	ESO 136-G012	16 02 35.49	-61 46 28.4	12.90	5.0	SBc	SB(s)c:	4370	37.2	1.220	
11	ESO 137-G018	16 20 58.39	-60 29 27.7	12.40	5.0	Sc	SA(s)c:	626	6.8	1.049	NED
12	ESO 137-G034	16 35 14.11	-58 04 48.1	12.39	0.4	S0/a	SAB(s)0/a?	2747	32.9	1.444	NED
13	ESO 137-G038	16 40 52.50	-60 23 39.5	12.89	4.1	SABb	SAB(r)bc:	3624	29.6r	1.066	
14	ESO 138-G005	16 53 53.52	-58 46 44.5	12.84	-3.1	E/S0	SB0 0 ? pec	2648	37.0r	0.568	
15	ESO 138-G010	16 59 02.89	-60 12 56.6	11.62	7.7	Sd	SA(s)dm	1145	14.7	0.949	
16	ESO 138-G029	17 29 18.45	-62 27 54.7	12.89	-1.0	S0/a (R)	SAB(s)0 $^+$ pec	4637	64.0r	0.357	PGC 60379
17	ESO 183-G030	18 56 55.90	-54 32 43.2	12.63	-3.1	E/S0	SA0 $^-$ pec?	2706	31.8	0.373	
18	ESO 185-G054	20 03 27.00	-55 56 49.3	12.85	-4.8	E	E2	4416	59.3	0.286	
19	ESO 186-G062	20 34 02.12	-52 58 52.6	12.80	7.0	SBcd	SB(s)d	2547	32.4	0.214	
20	ESO 208-G021	07 33 56.26	-50 26 35.1	12.19	-3.1	E/S0	SAB0 $^-$	1051	17.0	0.747	
21	ESO 209-G009	07 58 15.45	-49 51 16.1	12.44	6.1	SBc	SB(s)cd: spin	1119	13.6	1.112	
22	ESO 213-G011	10 16 55.44	-48 52 51.9	12.09	5.1	Sc	SA(s)c	2741	27.5	0.919	
23	ESO 219-G021	13 02 21.04	-50 20 03.7	12.83	6.8	SABc	SAB(s)d	1374	14.2	0.842	
24	ESO 221-G026	14 08 23.68	-47 58 14.4	12.11	-4.9	E	E5 pec:	2980	12.4	0.912	
25	ESO 221-G032	14 12 09.17	-49 23 22.8	12.80	4.6	Sc	SA(r)c pec	2911	38.5	0.865	
26	ESO 265-G007	11 07 48.52	-46 31 33.5	12.54	6.0	SBc	SB(s)cd	1067	13.4	0.593	
27	ESO 269-G057	13 10 04.46	-46 26 14.3	12.54	1.9	SABa	(R')SAB(r)ab	3095	46.3	0.435	
28	ESO 270-G017	13 34 47.51	-45 32 52.3	12.13	8.7	SBm	SB(s)m:	828	7.6	0.477	
29	ESO 271-G010	14 00 46.40	-45 25 06.3	12.90	6.1	Sc	SAB(s)cd	1498	31.2	0.422	
30	ESO 273-G014	14 58 30.38	-47 41 56.7	12.90	9.7	IB	IB(s)m pec:	1056	9.5	1.321	
31	ESO 274-G001	15 14 13.43	-46 48 24.9	11.73	6.7	Scd	SAd: spin	524	5.1	1.108	
32	ESO 311-G012	07 47 34.05	-41 27 06.7	12.41	0.1	S0/a	S0/a? spin	1131	18.3r	1.658	
33	ESO 320-G026	11 49 50.29	-38 47 03.9	12.90	3.0	Sb	Sb	2754	43.9	0.470	
34	ESO 321-G025	12 21 42.92	-39 46 10.4	12.64	6.0	SBc	SB(rs)cd pec?	2148	32.2	0.382	
35	ESO 351-G030	01 00 10.73	-33 42 13.1	10.29	-3.1	E?	E?	108	0.087	0.077	Sculptor
36	ESO 356-G004	02 40 01.45	-34 26 49.9	9.09	-5.0	E	dE4	49	0.137	0.087	Fornax
37	ESO 358-G063	03 46 18.94	-34 56 33.4	12.57	5.5	Sc	I0?	1931	18.9	0.027	
38	ESO 362-G011	05 16 38.70	-37 06 08.6	12.77	4.1	Sbc	Sbc: spin	1346	18.4	0.207	
39	ESO 373-G008	09 33 21.57	-33 02 01.2	12.71	5.9	Sc	Scd spin	929	11.1	0.576	
40	ESO 380-G001	12 14 45.12	-35 30 35.1	12.88	2.8	Sb	(R')SB(s)b:	2688	27.4	0.326	
41	ESO 380-G006	12 15 34.27	-35 37 46.9	12.36	2.9	Sb	(R')SA(s)b:	2944	35.8	0.348	
42	ESO 383-G087	13 49 17.52	-36 03 37.2	11.70	7.9	Sd	SB(s)dm	330	2.7	0.306	
43	ESO 384-G002	13 51 19.34	-33 48 26.1	12.88	8.0	SBd	SB(s)dm	1389	17.5	0.276	
44	ESO 436-G027	10 28 53.54	-31 36 32.2	12.63	-1.8	S0	(R')SA(s)0 0 pec	4244	63.5r	0.265	
45	ESO 440-G011	11 48 45.53	-28 17 37.1	12.75	6.8	Scd	SB(s)d:	1934	27.6	0.371	
46	ESO 442-G026	12 52 13.31	-29 50 26.4	12.71	-1.6	S0	SB0?	2860	43.2	0.350	
47	ESO 445-G089	14 01 04.03	-30 19 37.2	12.89	6.7	SBcd	SB(s)d pec:	2588	36.3	0.243	
48	ESO 479-G004	02 26 21.74	-24 17 23.6	12.79	8.2	SBd	SB(s)dm	1510	19.4	0.079	
49	ESO 494-G026	08 06 11.09	-27 31 41.2	12.63	3.4	SABb	SAB(s)b pec:	970	16.6r	1.818	
50	ESO 495-G021	08 36 15.19	-26 24 33.9	12.48	-5.0	E	I0? pec	874	10.5	0.481	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
51	ESO 506-G004	12 21 49.03	−24 10 05.7	12.89	2.4	SABa	SAB(r)ab:	4017	65.4	0.333	
52	ESO 507-G025	12 51 31.83	−26 27 06.9	12.67	−3.1	E/S0	SA0 $^-$	3216	36.2	0.385	
53	ESO 556-G015	06 21 05.55	−20 02 54.6	12.79	1.6	SBab	SB(s)a pec	1981	26.1	0.601	UGCA 128
54	ESO 582-G012	15 26 08.02	−22 16 56.8	12.71	5.1	SABc	SAB(rs)c	2318	29.1	0.587	
55	IC 438	05 53 00.07	−17 52 34.1	13.08	5.0	SABc	SA(rs)c	3124	40.3	0.316	extra
56	IC 764	12 10 14.18	−29 44 11.6	12.75	5.1	SABc	SA(s)c?	2130	26.5	0.259	
57	IC 1459	22 57 10.58	−36 27 43.6	11.23	−5.0	E	E3−4	1663	26.9	0.068	
58	IC 1633	01 09 55.49	−45 55 51.9	12.57	−3.9	E	cD1	7268	97.0r	0.050	
59	IC 1953	03 33 41.81	−21 28 43.4	12.71	6.7	Scd	SB(rs)d	1866	22.6	0.130	
60	IC 1954	03 31 31.50	−51 54 17.6	12.10	3.4	Sb	SB(s)b:	1065	14.0	0.070	
61	IC 1993	03 47 04.83	−33 42 36.2	12.52	3.0	SABb	(R')SAB(rs)b	1099	13.6r	0.043	
62	IC 2000	03 49 07.66	−48 51 29.9	12.82	6.1	SBc	SB(s)cd: sp	980	15.9	0.042	
63	IC 2006	03 54 28.42	−35 58 01.5	12.51	−4.7	E	(R)SA0 $^-$	1366	19.1	0.048	
64	IC 2035	04 09 01.84	−45 31 03.2	12.80	−2.2	S0	S0 pec?	1467	16.5	0.058	
65	IC 2051	03 52 00.70	−83 49 50.9	11.89	4.0	SBbc	SB(r)bc:	1727	24.2	0.489	
66	IC 2056	04 16 24.47	−60 12 24.1	12.80	3.9	Sbc	(R)SAB(r)bc:	1131	20.5	0.080	
67	IC 2150	05 51 18.55	−38 19 13.7	13.49	4.9	SBc	SB(r)c?	3119	43.9	0.206	extra
68	IC 2163	06 16 27.98	−21 22 33.1	12.00	4.8	Sc	SB(rs)c pec	2703	24.9	0.374	NED
69	IC 2311	08 18 45.96	−25 22 11.2	12.51	−5.0	E	E0:	1836	26.1	0.619	
70	IC 2367	08 24 10.04	−18 46 32.3	12.71	3.2	Sb	SB(r)b	2448	25	0.440	
71	IC 2469	09 23 01.00	−32 26 58.9	12.00	2.0	SBab	SB(rs)ab	1665	23.1	0.609	
72	IC 2522	09 55 08.98	−33 08 13.8	12.79	5.1	Sc	SB(s)c pec	3013	31.4	0.402	
73	IC 2531	09 59 55.39	−29 37 01.3	12.89	4.9	Sc	Sc: spin	2474	36.8	0.355	
74	IC 2537	10 03 51.87	−27 34 15.1	12.78	5.0	Sc	SAB(rs)c	2788	38.4	0.414	
75	IC 2554	10 08 50.72	−67 01 52.4	12.64	4.1	SBbc	SB(s)bc pec:	1378	21.2	0.884	
76	IC 2560	10 16 18.69	−33 33 49.7	12.46	2.9	SBb	(R')SB(r)b:	2920	35.1	0.410	
77	IC 2597	10 37 47.31	−27 04 52.3	12.90	−3.7	E	cD4	2974	35.8r	0.302	
78	IC 2627	11 09 53.35	−23 43 33.2	12.68	4.4	SABb	SA(s)bc:	2085	29.5	0.519	
79	IC 2764	11 27 05.02	−28 58 48.6	13.18	−0.1	S0/a	(R)SA(rs)0/a	1617	27.6r	0.289	extra
80	IC 2995	12 05 46.97	−27 56 25.4	13.22	5.5	SBc	SB(s)c?	1829	20.3	0.282	extra
81	IC 3253	12 23 45.18	−34 37 19.8	12.67	5.1	Sc	SA(s)c:	2724	53.5	0.302	
82	IC 3370	12 27 37.33	−39 20 16.1	12.04	−4.9	E	E2−3	2930	28.0	0.402	
83	IC 3896	12 56 43.19	−50 20 48.8	12.21	−4.8	E	E	2106	28.7	0.951	
84	IC 4214	13 17 42.69	−32 06 05.8	12.40	1.8	SBab	(R')SB(r)ab	2313	27.3	0.255	
85	IC 4296	13 36 39.01	−33 57 56.6	11.63	−5.0	E	E	3728	49.6	0.265	
86	IC 4329	13 49 05.32	−30 17 44.8	12.33	−2.9	E/S0	SAB(s)0 $^-$	4545	65.9r	0.265	
87	IC 4351	13 57 54.19	−29 18 56.2	12.62	3.0	Sb	SA(s)b: spin	2664	32.7	0.251	
88	IC 4402	14 21 12.97	−46 17 51.3	12.06	3.3	Sb	SA(s)b? spin	1653	19.1	0.479	
89	IC 4444	14 31 38.62	−43 25 09.1	12.07	4.0	SABb	SAB(rs)bc:	1957	26.9	0.724	IC 4441
90	IC 4538	15 21 11.59	−23 39 30.1	12.87	4.9	SABc	SAB(s)c:	2859	31.7	0.556	
91	IC 4618	16 57 50.13	−76 59 34.6	12.90	4.1	SBbc	SB(rs)bc pec	3014	41.5r	0.360	
92	IC 4646	17 23 53.14	−59 59 57.7	12.43	4.9	Sc	SA(rs)c:	3171	30.3	0.467	
93	IC 4662	17 47 07.95	−64 38 34.1	12.12	9.8	IB	IBm	308	2.7	0.303	
94	IC 4710	18 28 37.58	−66 58 58.3	12.50	8.9	Sm	SB(s)m	740	8.9	0.384	
95	IC 4721	18 34 24.71	−58 29 47.7	12.39	5.7	SBc	SB(s)cd:	2241	21.9	0.337	
96	IC 4742	18 41 52.57	−63 51 42.9	13.07	−4.8	E	E1	4435	58.3	0.407	extra
97	IC 4765	18 47 18.13	−63 19 51.9	12.34	−3.9	E	cD4	4516	58.3	0.406	
98	IC 4797	18 56 29.68	−54 18 20.3	12.25	−3.9	E	cD pec?	2672	30.3	0.338	
99	IC 4808	19 01 07.62	−45 18 49.2	12.94	5.0	Sc	SA(s)c	5081	55.3	0.278	extra
100	IC 4831	19 14 43.78	−62 16 20.6	12.67	1.9	Sab	(R')SA(s)ab	4353	50.5	0.252	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
101	IC 4837A	19 15 16.19	−54 07 56.9	12.71	3.0	Sb	SA(s)b: spin	2847	38.0r	0.265	
102	IC 4845	19 20 22.42	−60 23 20.7	12.37	2.8	SBb	SA(rs)b:	3953	53.2r	0.256	
103	IC 4889	19 45 15.11	−54 20 38.6	12.03	−4.7	E	E5−6	2525	27.7	0.227	
104	IC 4901	19 54 23.55	−58 42 48.7	12.28	5.1	SABc	SAB(rs)c:	2134	21.9	0.238	
105	IC 4946	20 23 58.06	−43 59 42.8	12.62	0.2	S0/a	SAB(rs)0/a:	2912	37.9	0.187	
106	IC 4991	20 18 23.28	−41 03 00.3	12.64	−2.2	S0	SA(r)0 $^{0?}$ pec	5702	75.0r	0.247	
107	IC 5011	20 28 33.78	−36 01 37.5	12.52	−2.0	S0	SB(s)0 0 : pec	2301	29.1r	0.182	
108	IC 5052	20 52 06.55	−69 12 11.5	11.79	7.1	SBcd	SBd: spin	590	8.1	0.219	
109	IC 5152	22 02 41.11	−51 17 47.7	10.69	9.9	IAB	IA(s)m	120	1.7	0.106	
110	IC 5181	22 13 21.64	−46 01 02.7	12.66	−1.9	S0	SA0 spin	2017	24.8	0.085	
111	IC 5201	22 20 57.39	−46 02 09.7	11.95	6.1	Sc	SB(rs)cd	915	11.3	0.051	
112	IC 5240	22 41 52.35	−44 46 01.7	12.69	1.0	SBa	SB(r)a	1776	21.4	0.065	
113	IC 5250	22 47 19.68	−65 03 32.1	12.36	−2.8	E/S0	S0 pec?	3148	41.6r	0.141	
114	IC 5267	22 57 13.46	−43 23 45.1	11.37	−1.6	S0	SA(s)0/a	1714	26.1	0.054	
115	IC 5273	22 59 26.64	−37 42 10.2	12.74	5.7	SBc	SB(rs)cd:	1296	16.8	0.054	
116	IC 5325	23 28 43.37	−41 19 59.4	12.23	4.1	Sbc	SAB(rs)bc	1504	18.1	0.088	
117	IC 5328	23 33 16.40	−45 00 56.9	12.30	−4.5	E	E4	3079	34.6	0.063	
118	IC 5332	23 34 27.44	−36 06 03.6	11.23	6.6	SABc	SA(s)d	706	8.4	0.071	
119	NGC 24	00 09 56.15	−24 57 49.8	12.14	5.0	Sc	SA(s)c	554	6.9	0.084	
120	NGC 45	00 14 03.99	−23 10 55.5	11.39	7.8	SABd	SA(s)dm	468	9.9	0.090	
121	NGC 55	00 15 08.50	−39 13 13.0	9.59	8.7	SBm	SB(s)m: sp	125	1.9	0.057	NED
122	NGC 134	00 30 21.95	−33 14 38.2	11.26	4.0	SABb	SAB(s)bc	1579	19.2	0.077	
123	NGC 150	00 34 15.43	−27 48 12.7	12.13	3.3	SBb	SB(rs)b:	1585	21.9	0.062	
124	NGC 151	00 34 02.79	−09 42 19.4	12.25	4.1	Sbc	SB(r)bc	3747	46.5	0.140	
125	NGC 157	00 34 46.76	−08 23 47.2	11.05	4.4	SABb	SAB(rs)bc	1660	19.5	0.192	NED
126	NGC 210	00 40 34.95	−13 52 21.9	11.80	3.3	SABb	SAB(s)b	1635	19.7	0.094	
127	NGC 245	00 46 05.38	−01 43 24.3	12.82	3.3	Sb	SA(rs)b pec?	4074	51.3r	0.115	
128	NGC 247	00 47 08.46	−20 45 37.0	9.72	6.9	SABc	SAB(s)d	160	3.6	0.078	
129	NGC 253	00 47 32.86	−25 17 20.7	8.16	5.2	SABc	SAB(s)c	248	3.2	0.081	
130	NGC 254	00 47 27.59	−31 25 18.4	12.65	−1.2	S0/a	(R)SAB(r)0 $^{+}$	1622	17.1	0.095	
131	NGC 255	00 47 47.19	−11 28 07.5	12.31	4.2	Sbc	SAB(rs)bc	1593	20.0	0.115	
132	NGC 275	00 51 04.45	−07 03 55.6	12.72	5.9	SBc	SB(rs)cd pec	1745	21.9	0.242	
133	NGC 289	00 52 42.22	−31 12 20.9	11.79	3.8	SBbc	SB(rs)bc	1630	22.8	0.084	
134	NGC 300	00 54 53.48	−37 41 03.8	8.81	6.9	Scd	SA(s)d	142	1.9	0.055	NED
135	NGC 337	00 59 49.98	−07 34 34.9	12.12	6.8	SBcd	SB(s)d	1650	20.3	0.485	
136	NGC 434	01 12 14.10	−58 14 52.5	12.80	1.9	Sab	SAB(s)ab	4865	65.7r	0.095	
137	NGC 578	01 30 28.56	−22 40 01.5	11.60	5.1	Sc	SAB(rs)c	1630	21.2	0.053	
138	NGC 584	01 31 20.68	−06 52 04.6	11.53	−4.8	E	E4	1798	19.5	0.182	
139	NGC 596	01 32 51.85	−07 01 53.5	12.03	−4.2	E	cD pec?	1885	20.6	0.159	
140	NGC 613	01 34 18.17	−29 25 06.1	10.99	4.2	Sbc	SB(rs)bc	1484	24.9	0.083	
141	NGC 615	01 35 05.67	−07 20 24.7	12.53	2.9	Sb	SA(rs)b	1847	27.0	0.138	
142	NGC 625	01 35 04.63	−41 26 10.3	11.57	9.0	SBm	SB(s)m? sp	392	3.6	0.071	NED
143	NGC 636	01 39 06.52	−07 30 45.3	12.49	−4.9	E	E3	1854	25.4	0.110	
144	NGC 681	01 49 10.79	−10 25 34.7	12.82	1.6	SABa	SAB(s)ab sp	1757	33.6	0.149	
145	NGC 685	01 47 42.81	−52 45 42.5	11.75	5.1	Sc	SAB(r)c	1356	15.2	0.099	NED
146	NGC 701	01 51 03.84	−09 42 09.7	12.84	5.1	SBc	SB(rs)c	1832	22.5	0.109	
147	NGC 720	01 53 00.46	−13 44 18.4	11.41	−4.9	E	E5	1732	23.9	0.070	
148	NGC 779	01 59 42.61	−05 57 51.2	12.27	3.0	SABb	SAB(r)b	1392	18.2	0.116	
149	NGC 782	01 57 40.33	−57 47 24.4	12.67	3.0	SBb	SB(r)b	5982	80.1r	0.086	
150	NGC 895	02 21 36.42	−05 31 16.3	12.29	5.9	Sc	SA(s)cd	2288	29.6	0.110	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
151	NGC 908	02 23 04.51	−21 14 01.6	10.93	5.2	SABc	SA(s)c	1501	17.9	0.108	
152	NGC 922	02 25 04.44	−24 47 17.2	12.53	6.3	SBc	SB(s)cd pec	3088	50.7	0.085	
153	NGC 936	02 27 37.39	−01 09 21.4	11.16	−0.9	S0/a	SB(rs)0 $^+$	1341	20.7	0.152	
154	NGC 945	02 28 37.26	−10 32 20.5	12.89	4.6	SBc	SB(rs)c	4482	58.2r	0.109	
155	NGC 958	02 30 42.76	−02 56 20.4	12.90	5.0	SBc	SB(rs)c:	5738	55.7	0.130	
156	NGC 986	02 33 34.29	−39 02 42.1	11.70	2.1	Sab	SB(rs)ab	1984	17.2	0.082	
157	NGC 988	02 35 27.69	−09 21 21.9	11.42	5.8	Sc	SB(s)cd:	1504	17.2	0.116	
158	NGC 1022	02 38 32.70	−06 40 38.6	12.32	1.1	SBA	(R')SB(s)a	1456	18.5	0.110	
159	NGC 1042	02 40 23.95	−08 26 00.5	12.11	6.1	SABc	SAB(rs)cd	1374	10.5	0.124	
160	NGC 1052	02 41 04.79	−08 15 20.7	11.63	−4.8	E	E4	1493	19.6	0.114	
161	NGC 1068	02 42 40.65	−00 00 47.6	9.46	3.0	Sb	(R)SA(rs)b	1137	12.3	0.145	
162	NGC 1079	02 43 44.29	−29 00 11.6	12.63	0.5	SABa(R)	SAB(rs)0/a pec	1451	26.1	0.098	
163	NGC 1084	02 45 59.85	−07 34 42.2	11.61	5.1	Sc	SA(s)c	1406	21.2	0.115	
164	NGC 1087	02 46 25.23	−00 29 57.1	11.65	5.1	SABc	SAB(rs)c	1516	17.5	0.149	
165	NGC 1090	02 46 33.88	−00 14 49.8	12.53	3.8	Sbc	SB(rs)bc	2757	32.4	0.141	
166	NGC 1097	02 46 18.97	−30 16 29.0	10.16	3.1	SBb	SB(s)b	1273	16.8	0.115	
167	NGC 1172	03 01 36.01	−14 50 11.4	12.87	−3.9	E	cD:	1624	24.3	0.275	
168	NGC 1179	03 02 38.46	−18 53 52.7	12.83	5.9	Sc	SAB(r)cd	1778	18.2	0.104	
169	NGC 1187	03 02 37.52	−22 52 01.7	11.39	5.1	Sc	SB(r)c	1394	18.0	0.093	
170	NGC 1199	03 03 38.37	−15 36 48.4	12.46	−4.9	E	E3:	4192	31.9	0.233	
171	NGC 1201	03 04 07.97	−26 04 10.5	12.06	−2.5	E/S0	SA(r)0 0 :	1694	20.2	0.069	
172	NGC 1209	03 06 02.97	−15 36 39.9	12.44	−4.6	E	E6:	2621	31.9	0.163	
173	NGC 1232	03 09 45.51	−20 34 45.5	10.65	5.2	SABc	SAB(rs)c	1682	18.7	0.114	NED
174	NGC 1249	03 10 01.24	−53 20 09.5	12.78	5.9	SBc	SB(s)cd	1072	16.1	0.072	
175	NGC 1253	03 14 09.06	−02 49 20.9	12.65	5.7	SABc	SAB(rs)cd	1710	22.7	0.388	
176	NGC 1255	03 13 31.94	−25 43 30.2	11.62	4.5	SABb	SAB(rs)bc	1689	21.9	0.060	
177	NGC 1291	03 17 18.54	−41 06 28.4	9.60	0.1	S0/a	(R)SB(s)0/a	838	8.6	0.056	
178	NGC 1292	03 18 14.82	−27 36 37.5	12.79	5.2	Sc	SA(s)c	1368	20.5	0.074	
179	NGC 1300	03 19 40.98	−19 24 40.3	11.22	3.7	Sbc	SB(rs)bc	1577	19.1	0.130	
180	NGC 1302	03 19 51.16	−26 03 37.6	11.97	0.0	S0/a	(R)SB(r)0/a	1706	20	0.091	
181	NGC 1309	03 22 06.52	−15 23 59.8	12.08	3.9	Sbc	SA(s)bc:	2136	26	0.172	
182	NGC 1313	03 18 16.05	−66 29 53.7	9.66	6.9	SBcd	SB(s)d	461	4.0	0.471	NED
183	NGC 1316	03 22 41.63	−37 12 28.5	9.78	−1.9	S0	SAB(s)0 0 pec	1781	19.2	0.090	
184	NGC 1317	03 22 44.23	−37 06 13.2	11.92	0.7	SABa	SAB(r)a	1918	16.9	0.090	
185	NGC 1325	03 24 25.53	−21 32 38.5	12.26	4.2	SBbc	SA(s)bc	1590	21.4	0.094	
186	NGC 1326	03 23 56.29	−36 27 51.9	11.53	−0.8	S0/a	(R)SB(r)0 $^+$	1362	16.9	0.081	
187	NGC 1332	03 26 17.19	−21 20 06.6	11.39	−3.1	E/S0	S0(s) $^-$: sp	1526	18.9	0.141	
188	NGC 1337	03 28 05.87	−08 23 18.4	12.53	6.0	SBc	SA(s)cd	1239	15.1	0.291	
189	NGC 1339	03 28 06.53	−32 17 09.6	12.80	−4.2	E	cD pec?	1356	20.8	0.057	
190	NGC 1340	03 28 19.59	−31 04 05.1	11.23	−4.6	E	E5	1187	18.2	0.077	
191	NGC 1350	03 31 08.04	−33 37 41.8	11.22	1.9	Sab	(R')SB(r)ab	1901	20.9	0.053	
192	NGC 1351	03 30 34.91	−34 51 14.1	12.43	−3.2	E/S0	SA0 $^-$ pec:	1540	20.4	0.061	
193	NGC 1353	03 32 02.96	−20 49 08.1	12.41	3.1	Sb	SB(rs)b:	1526	24.4	0.140	
194	NGC 1357	03 33 17.02	−13 39 50.9	12.44	2.1	Sab	SA(s)ab	2019	24.7	0.187	
195	NGC 1365	03 33 36.37	−36 08 25.5	10.32	3.2	Sb	SB(s)b	1655	18.1	0.088	NED
196	NGC 1367	03 35 01.33	−24 55 59.5	11.56	0.9	Sa	SAB(rs)a	1468	22.3	0.105	
197	NGC 1374	03 35 16.57	−35 13 34.6	12.03	−4.8	E	E	1331	19.4	0.060	
198	NGC 1379	03 36 03.96	−35 26 28.6	11.94	−4.9	E	E	1365	18.1	0.052	
199	NGC 1380	03 36 27.58	−34 58 33.8	11.05	−2.1	S0	SA0	1849	18.0	0.075	
200	NGC 1381	03 36 31.63	−35 17 42.8	12.66	−2.0	S0	SA0: sp	1774	17.2	0.058	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
201	NGC 1385	03 37 28.28	−24 30 04.5	11.52	5.7	Sc	SB(s)cd	1495	15.4	0.087	
202	NGC 1386	03 36 46.15	−35 59 57.3	12.17	−0.8	S0/a	SB(s)0 $^{+}$	841	16.2	0.053	
203	NGC 1387	03 36 56.98	−35 30 23.8	11.76	−2.9	E/S0	SAB(s)0 $^{-}$	1299	18.0	0.055	
204	NGC 1389	03 37 11.73	−35 44 45.9	12.55	−2.9	E/S0	SAB(s)0 $^{-}$:	990	17.3	0.046	
205	NGC 1395	03 38 29.67	−23 01 38.5	10.68	−5.0	E	E2	1711	21.9	0.100	
206	NGC 1398	03 38 52.01	−26 20 15.6	10.53	1.9	SBab	(R')SB(r)ab	1406	20.5	0.058	
207	NGC 1399	03 38 28.99	−35 27 01.8	10.33	−4.9	E	E1 pec	1446	18.9	0.056	
208	NGC 1400	03 39 30.79	−18 41 17.3	12.29	−3.2	E/S0	SA0 $^{-}$	546	23.6	0.279	
209	NGC 1404	03 38 51.89	−35 35 39.3	10.90	−5.0	E	E1	1942	18.6	0.049	
210	NGC 1407	03 40 11.80	−18 34 48.4	10.91	−4.9	E	E0	1783	23.8	0.297	
211	NGC 1411	03 38 44.84	−44 06 02.1	12.19	−2.9	E/S0	SA(r)0 $^{-}$:	6772	15.5	0.042	
212	NGC 1415	03 40 56.81	−22 33 52.1	12.78	0.5	S0/a	(R)SAB(s)0/a	1572	17.7	0.104	
213	NGC 1417	03 41 57.38	−04 42 17.5	12.83	3.1	SABb	SAB(rs)b	4123	53.2	0.242	
214	NGC 1421	03 42 29.28	−13 29 17.1	12.38	4.1	Sbc	SAB(rs)bc:	2094	25.8	0.294	
215	NGC 1425	03 42 11.45	−29 53 35.9	11.44	3.2	Sb	SA(s)b	1510	20.9	0.055	
216	NGC 1426	03 42 49.04	−22 06 30.2	12.71	−4.8	E	E4	1420	22.4	0.072	
217	NGC 1427	03 42 19.43	−35 23 33.3	11.84	−4.1	E	cD	1442	20.9	0.048	
218	NGC 1433	03 42 01.48	−47 13 18.8	10.76	2.0	SBab	(R')SB(r)ab	1074	9.9	0.039	
219	NGC 1436	03 43 37.04	−35 51 11.2	12.86	3.3	Sb	(R')SAB(rs)ab	1390	19.1	0.046	
220	NGC 1439	03 44 49.88	−21 55 14.3	12.38	−5.0	E	E1	1702	24.3	0.128	
221	NGC 1448	03 44 31.95	−44 38 42.1	11.45	5.8	Sc	SAcd: sp	1167	17.7	0.061	
222	NGC 1452	03 45 22.29	−18 38 01.3	12.90	0.2	S0/a	(R')SB(r)0/a	1740	22.8	0.419	
223	NGC 1453	03 46 27.19	−03 58 07.8	12.68	−5.0	E	E2−3	3928	51.7	0.452	
224	NGC 1461	03 48 27.10	−16 23 34.3	12.85	−1.9	S0	SA(r)0 0	1439	17.1	0.211	
225	NGC 1487	03 55 44.79	−42 22 05.4	12.33	6.7	Scd	pec	849	8.9	0.051	
226	NGC 1493	03 57 27.39	−46 12 38.4	11.72	6.0	SBc	SB(r)cd	1053	11.3	0.044	
227	NGC 1494	03 57 42.26	−48 54 30.1	12.10	7.0	Scd	SAB(s)d:	1126	15.4	0.026	
228	NGC 1507	04 04 27.16	−02 11 20.3	12.86	8.3	SBd	SB(s)m pec?	857	11.4	0.709	
229	NGC 1511	03 59 37.45	−67 38 04.8	11.86	1.4	Sa	SAa pec:	1342	16.5	0.265	
230	NGC 1512	04 03 54.13	−43 20 55.5	11.04	1.0	Sa	SB(r)a	900	12.3	0.046	
231	NGC 1515	04 04 02.53	−54 05 59.9	11.92	4.0	SABb	SAB(s)bc	1171	16.9	0.060	
232	NGC 1518	04 06 49.21	−21 10 34.1	12.26	7.7	SBd	SB(s)dm	924	9.6	0.207	
233	NGC 1521	04 08 18.88	−21 03 07.3	12.71	−4.9	E	E3:	4191	56.7	0.175	
234	NGC 1527	04 08 24.05	−47 53 49.1	11.67	−2.9	E/S0	SAB(r)0 $^{-}$	1089	16.7	0.054	
235	NGC 1531	04 12 04.35	−32 52 26.9	12.90	−2.6	E/S0	S0 $^{-}$ pec:	1165	13	0.066	
236	NGC 1532	04 12 04.33	−32 52 27.2	10.68	3.0	SBb	SB(s)b pec spin	1186	17.1	0.066	NED
237	NGC 1533	04 09 51.79	−56 07 06.3	11.82	−2.6	E/S0	SB0 $^{-}$	790	18.4	0.066	
238	NGC 1537	04 13 40.63	−31 38 42.7	11.64	−3.4	E/S0	SAB0 $^{-}$ pec?	1361	18.8	0.107	
239	NGC 1543	04 12 43.11	−57 44 16.4	11.53	−1.9	S0	(R)SB(s)0 0	1248	17.5	0.117	
240	NGC 1546	04 14 36.34	−56 03 38.8	12.28	−0.6	S0/a	SA0 $^{+}$?	1226	13.4	0.063	
241	NGC 1549	04 15 45.06	−55 35 32.0	10.69	−4.8	E	E0−1	1201	16.4	0.055	
242	NGC 1553	04 16 10.45	−55 46 47.9	10.30	−2.0	S0	SA(r)0 0	1082	14.6	0.057	
243	NGC 1559	04 17 35.75	−62 47 01.6	11.03	5.9	SBc	SB(s)cd	1294	15.5	0.129	
244	NGC 1566	04 20 00.39	−54 56 16.4	10.30	4.1	SABb	SAB(s)bc	1498	11.8	0.039	
245	NGC 1574	04 21 58.68	−56 58 28.3	11.36	−2.9	E/S0	SA(s)0 $^{-}$:	1031	18.6	0.071	
246	NGC 1596	04 27 38.08	−55 01 39.8	12.01	−2.0	S0	SA0: sp	1510	15.6	0.041	
247	NGC 1600	04 31 39.82	−05 05 10.5	12.04	−4.8	E	E3	4732	49.6	0.191	
248	NGC 1617	04 31 39.35	−54 36 07.7	11.26	0.9	SBa	SB(s)a	1066	13.4	0.032	
249	NGC 1637	04 41 28.14	−02 51 28.5	11.63	5.0	Sc	SAB(rs)c	716	11.0	0.174	
250	NGC 1640	04 42 14.49	−20 26 05.4	12.38	2.9	Sb	SB(r)b	1602	19.1	0.149	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
251	NGC 1667	04 48 37.14	−06 19 11.9	12.77	5.1	SABc	SAB(r)c	4549	61.8r	0.328	
252	NGC 1672	04 45 42.42	−59 14 50.6	10.33	3.2	Sb	SB(s)b	1347	14.5	0.101	
253	NGC 1679	04 49 55.03	−31 57 56.1	12.16	9.8	IB	SB(s)m	1056	12.7	0.095	
254	NGC 1688	04 48 23.76	−59 48 01.3	12.20	6.6	SBcd	SB(rs)d	1229	13.4	0.149	
255	NGC 1700	04 56 56.26	−04 51 56.7	12.12	−4.5	E	E4	3914	39.9	0.184	
256	NGC 1703	04 52 52.07	−59 44 32.2	12.06	3.3	SBb	SB(r)b	1526	17.4	0.145	
257	NGC 1705	04 54 13.45	−53 21 39.6	12.77	−3.0	E/S0	SA0 $^-$ pec:	628	5.4	0.035	
258	NGC 1723	04 59 25.86	−10 58 50.6	12.57	1.1	Sa	SB(r)a pec	3742	32.8	0.463	
259	NGC 1726	04 59 41.85	−07 45 18.8	12.70	−2.4	S0	SA(s)0 $^-$:	4014	36.9	0.298	
260	NGC 1744	04 59 57.70	−26 01 20.1	11.71	6.5	SBc	SB(s)d	745	11.0	0.177	
261	NGC 1784	05 05 27.07	−11 52 16.8	12.38	5.0	Sc	SB(r)c	2316	30.0	0.572	
262	NGC 1792	05 05 14.42	−37 58 50.1	10.82	4.0	Sbc	SA(rs)bc	1218	13.5	0.097	
263	NGC 1796	05 02 42.42	−61 08 24.1	12.88	5.0	SBc	SB(rs)c pec:	989	10.6	0.105	
264	NGC 1808	05 07 42.28	−37 30 45.6	10.76	1.1	Sa	(R)SAB(s)a	1002	11.6	0.131	
265	NGC 1832	05 12 03.32	−15 41 15.9	12.12	4.1	Sbc	SB(r)bc	1942	26.2	0.315	
266	NGC 1888	05 22 34.40	−11 29 58.9	12.80	5.1	SBc	SB(s)c pec	2443	34.8	0.657	
267	NGC 1892	05 17 09.05	−64 57 35.1	12.83	5.8	Sc	Scd:	1359	16.6	0.324	
268	NGC 1947	05 26 47.40	−63 45 36.8	11.68	−2.8	E/S0	S0 $^-$ pec	1140	12.1	0.229	
269	NGC 1954	05 32 48.30	−14 03 45.5	12.86	4.1	Sbc	SA(rs)bc pec:	3129	39.3	0.637	
270	NGC 1964	05 33 21.57	−21 56 45.6	11.54	3.1	SABb	SAB(s)b	1663	21.8	0.149	
271	NGC 2082	05 41 51.07	−64 18 04.4	12.73	3.2	SBb	SB(r)b	1234	17.4	0.250	
272	NGC 2090	05 47 01.85	−34 15 01.7	11.66	4.2	Sbc	SA(rs)c	927	12.8	0.171	
273	NGC 2139	06 01 07.94	−23 40 20.8	11.98	5.8	Sc	SAB(rs)cd	1838	27.4	0.145	
274	NGC 2188	06 10 10.07	−34 06 14.4	12.04	8.6	SBm	SB(s)m spin	748	7.9	0.140	
275	NGC 2196	06 12 09.63	−21 48 21.7	12.00	1.1	Sa	(R')SA(s)a	2319	28.8	0.354	
276	NGC 2207	06 16 22.00	−21 22 22.1	12.11	4.2	SABb	SAB(rs)bc pec	2747	24.9	0.374	
277	NGC 2217	06 21 39.72	−27 14 01.7	11.57	−0.8	S0/a	(R)SB(rs)0 $^+$	1618	19.5	0.187	
278	NGC 2223	06 24 35.89	−22 50 17.9	12.52	3.1	Sb	SAB(r)b	2721	33.7	0.274	
279	NGC 2272	06 42 41.24	−27 27 34.3	12.88	−2.9	E/S0	SAB(s)0 $^-$	2153	31.2r	0.431	
280	NGC 2280	06 44 49.03	−27 38 18.6	11.03	5.7	Sc	SA(s)cd	1904	24.0	0.439	
281	NGC 2292	06 47 39.64	−26 44 46.5	11.98	−2.1	S0	SAB0 0 pec	2317	29.4	0.514	
282	NGC 2293	06 47 42.80	−26 45 15.5	12.26	−1.1	S0/a	SAB(s)0 $^-$ pec	2038	28.9	0.517	
283	NGC 2305	06 48 37.25	−64 16 23.9	12.76	−4.8	E	E2? pec	3499	35.3	0.327	
284	NGC 2310	06 53 53.95	−40 51 45.8	12.57	−1.8	S0	S0 spin	1187	13.6	0.459	
285	NGC 2325	07 02 40.37	−28 41 50.3	12.37	−5.0	E	E4	2148	22.6	0.507	
286	NGC 2380	07 23 54.61	−27 31 43.8	12.31	−2.4	S0	SAB0 0 :	1774	22.2	1.316	
287	NGC 2397	07 21 19.92	−69 00 05.7	12.85	3.1	SBb	SB(s)b:	1354	22.7	0.884	
288	NGC 2417	07 30 12.08	−62 15 09.5	12.90	4.1	Sbc	SA(rs)bc	3192	43.7	0.803	
289	NGC 2427	07 36 28.57	−47 38 13.3	12.30	7.6	SABd	SAB(s)dm	971	12.0	0.926	
290	NGC 2434	07 34 51.14	−69 17 03.5	12.37	−4.8	E	E0−1	1412	21.9	1.069	
291	NGC 2442	07 36 23.82	−69 31 51.3	11.34	4.0	Sbc	SAB(s)bc pec	1449	17.1	0.874	
292	NGC 2525	08 05 38.02	−11 25 37.5	12.23	5.1	Sc	SB(s)c	1582	18.5	0.251	
293	NGC 2559	08 17 06.08	−27 27 20.0	11.71	4.6	SBc	SB(s)bc pec:	1559	18.3	0.944	
294	NGC 2566	08 18 45.56	−25 29 58.2	11.86	2.9	Sb	(R')SB(rs)ab pec:	1638	21.1	0.621	
295	NGC 2613	08 33 22.76	−22 58 24.9	11.15	3.2	Sb	SA(s)b	1678	25.9	0.383	
296	NGC 2640	08 37 24.52	−55 07 25.0	12.13	−3.0	E/S0	SAB0 $^-$	1051	17.2r	1.289	
297	NGC 2663	08 45 08.14	−33 47 40.9	12.01	−4.8	E	E	2127	27.5	1.577	
298	NGC 2695	08 54 27.04	−03 04 00.9	12.89	−2.2	S0	SAB(s)0 0 ?	1833	35.0	0.077	
299	NGC 2698	08 55 36.47	−03 11 02.4	12.88	−1.2	S0/a	SA0 $^+$?	1858	29.7r	0.082	
300	NGC 2708	08 56 08.05	−03 21 36.6	12.79	3.0	SABb	SAB(s)b pec?	2006	38.0	0.070	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
301	NGC 2763	09 06 49.03	−15 29 59.7	12.61	5.5	SBc	SB(r)cd pec	1891	28.6	0.314	
302	NGC 2781	09 11 27.49	−14 49 00.4	12.48	−1.1	S0/a	SAB(r)0 $^{+}$	2033	27.5	0.263	
303	NGC 2784	09 12 19.40	−24 10 21.4	11.19	−2.1	S0	SA(s)0 0 :	704	8.5	0.925	
304	NGC 2811	09 16 11.08	−16 18 45.9	12.24	1.0	SBa	SB(rs)a	2371	33.7	0.233	
305	NGC 2815	09 16 19.74	−23 37 59.9	12.74	2.8	SBb	SB(r)b:	2538	37.4	0.548	
306	NGC 2822	09 13 50.48	−69 38 42.8	11.69	−4.9	E	E?	1580	24.7r	0.409	
307	NGC 2835	09 17 52.82	−22 21 17.2	11.04	5.1	Sc	SB(rs)c	887	10.2	0.435	
308	NGC 2848	09 20 09.87	−16 31 32.9	12.38	4.9	SABc	SAB(s)c:	2046	27.7	0.258	
309	NGC 2855	09 21 27.47	−11 54 34.3	12.47	−0.2	S0/a	(R)SA(rs)0/a	1907	26.3	0.203	
310	NGC 2865	09 23 30.19	−23 09 40.8	12.45	−4.9	E	E3–4	2765	31.2	0.355	
311	NGC 2889	09 27 12.58	−11 38 36.6	12.46	4.8	SABc	SAB(rs)c	3366	50.3r	0.166	
312	NGC 2907	09 31 36.58	−16 44 05.0	12.62	0.8	Sa	SA(s)a $_{\perp}$ spin	2089	28.2	0.259	
313	NGC 2935	09 36 44.82	−21 07 41.7	12.18	3.2	Sb	(R')SAB(s)b	2275	30.2	0.275	
314	NGC 2947	09 36 05.82	−12 26 11.8	12.88	3.8	SABb	SAB(r)bc	2814	43.1r	0.173	
315	NGC 2974	09 42 33.27	−03 41 57.0	11.91	−4.9	E	E4	1895	25.3	0.235	
316	NGC 2983	09 43 41.09	−20 28 38.4	12.83	−0.8	S0/a	SB(rs)0 $^{+}$	2039	27.4	0.262	
317	NGC 2986	09 44 16.02	−21 16 41.1	11.69	−4.8	E	E2	2316	35.3	0.255	
318	NGC 2997	09 45 38.79	−31 11 27.9	10.06	5.3	SABc	SAB(rs)c	1087	10.3	0.469	NED
319	NGC 3001	09 46 18.65	−30 26 14.9	12.57	4.1	Sbc	SAB(rs)bc	2475	39.8	0.503	
320	NGC 3038	09 51 15.47	−32 45 09.1	12.43	3.1	Sb	SA(rs)b	2787	37.5	0.558	
321	NGC 3052	09 54 27.92	−18 38 20.1	12.80	5.1	SABc	SAB(r)c:	3772	49.8	0.199	
322	NGC 3054	09 54 28.58	−25 42 12.1	12.38	3.1	Sb	SAB(r)b	2430	34.8	0.320	
323	NGC 3056	09 54 32.86	−28 17 53.6	12.57	−1.2	S0/a	(R)SA(s)0 $^{-}$:	1032	12.3	0.385	
324	NGC 3059	09 50 08.43	−73 55 18.6	11.72	4.2	SBbc	SB(rs)bc	1260	14.8	1.052	
325	NGC 3078	09 58 24.58	−26 55 35.8	12.11	−5.0	E	E2–3	2504	34.5	0.306	
326	NGC 3087	09 59 08.67	−34 13 30.9	12.49	−4.2	E	cD:	2595	38.2	0.457	
327	NGC 3091	10 00 14.13	−19 38 11.0	12.13	−4.9	E	E3:	3809	48.4	0.187	
328	NGC 3095	10 00 05.84	−31 33 10.4	12.37	5.1	Sc	SAB(rs)c	2722	34.5	0.299	
329	NGC 3100	10 00 40.81	−31 39 52.1	11.97	−2.2	S0	SAB(s)0 0 pec	2502	40.6r	0.313	
330	NGC 3108	10 02 29.01	−31 40 38.6	12.76	−1.3	S0/a	SA(s)0 $^{+}$	2600	38.6	0.336	
331	NGC 3109	10 03 10.69	−26 09 27.9	10.35	9.1	SBm	SB(s)m spin	404	1.3	0.288	
332	NGC 3115	10 05 13.91	−07 43 06.8	10.10	−2.7	E/S0	S0 $^{-}$ spin	659	10.1	0.205	
333	NGC 3124	10 06 39.88	−19 13 17.6	12.76	4.0	Sbc	SAB(rs)bc	3561	38.7	0.236	
334	NGC 3136	10 05 48.05	−67 22 40.6	11.83	−5.0	E	E:	1707	23.9	1.025	
335	NGC 3137	10 09 07.42	−29 03 50.8	12.27	6.0	SABc	SA(s)cd	1106	15.1	0.299	
336	NGC 3145	10 10 09.86	−12 26 01.7	12.61	4.0	SBbc	SB(rs)bc	3656	53.5	0.278	
337	NGC 3175	10 14 42.32	−28 52 19.8	12.29	1.6	Sab	SAB(s)a?	1103	17.6	0.319	
338	NGC 3200	10 18 36.50	−17 58 57.1	12.74	4.6	Sc	SAB(rs)c:	3514	53.9	0.303	
339	NGC 3223	10 21 35.07	−34 16 00.6	11.80	3.3	Sb	SA(s)b	2896	33.9	0.466	
340	NGC 3250	10 26 32.28	−39 56 38.6	12.16	−5.0	E	E4	2817	40.0	0.444	
341	NGC 3256	10 27 51.20	−43 54 14.0	12.08	4.0	Sbc	pec	2789	37.4	0.524	
342	NGC 3258	10 28 53.51	−35 36 19.6	12.51	−4.9	E	E1	2775	40.9	0.363	
343	NGC 3261	10 29 01.47	−44 39 24.9	12.29	3.3	Sb	SB(rs)b	2556	33.4	0.559	
344	NGC 3263	10 29 13.38	−44 07 22.2	12.44	5.5	SBc	SB(rs)cd: spin	3013	39.1	0.513	
345	NGC 3268	10 30 00.66	−35 19 31.4	12.42	−4.9	E	E2	2776	40.5	0.444	
346	NGC 3271	10 30 26.49	−35 21 34.1	12.82	−1.7	S0	SB(r)0 0	3796	56.5r	0.466	
347	NGC 3275	10 30 51.75	−36 44 13.0	12.51	1.8	Sab	SB(r)ab	3218	42.4	0.286	
348	NGC 3281	10 31 52.06	−34 51 13.1	12.63	1.9	Sab	SA(s)ab pec:	3440	48.3r	0.415	
349	NGC 3283	10 31 11.60	−46 15 05.0	12.56	−2.0	S0	SA(s)0 0 ?	2889	43.6r	0.784	ESO 263-G048
350	NGC 3309	10 36 35.65	−27 31 06.4	12.48	−5.0	E	E3	4082	52.9	0.343	NED

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
351	NGC 3311	10 36 42.82	−27 31 42.0	12.28	−3.7	E	cD2	3775	47.3	0.343	NED
352	NGC 3312	10 37 02.53	−27 33 54.1	12.77	2.9	Sb	SA(s)b pec?	2862	48.6	0.340	NED
353	NGC 3313	10 37 25.45	−25 19 09.6	12.53	2.0	Sab	(R')SB(rs)ab	3706	55.5r	0.232	
354	NGC 3318	10 37 15.49	−41 37 39.0	12.34	3.6	Sbc	SAB(rs)b	2776	39.0	0.336	
355	NGC 3347	10 42 46.61	−36 21 11.6	12.15	3.2	SBb	SB(rs)b	3004	32.4	0.253	
356	NGC 3358	10 43 33.02	−36 24 38.6	12.27	0.1	S0/a	(R)SAB(s)0/a	2973	38.3	0.236	
357	NGC 3366	10 35 08.27	−43 41 30.6	12.21	3.2	SBb	(R')SB(r)b:	2886	41.8	0.576	
358	NGC 3390	10 48 04.35	−31 32 00.4	12.85	2.8	Sb	Sb spin	2835	38	0.337	
359	NGC 3450	10 48 03.63	−20 50 57.0	12.54	2.9	Sb	SB(r)b	4025	60.1r	0.238	
360	NGC 3511	11 03 23.87	−23 05 09.3	11.53	5.2	SABc	SA(s)c	1105	14.1	0.294	
361	NGC 3513	11 03 46.04	−23 14 43.7	12.04	5.1	SBc	SB(rs)c	1194	12.4	0.274	
362	NGC 3521	11 05 48.54	−00 02 09.1	9.73	3.6	SABb	SAB(rs)bc	807	12.2	0.250	
363	NGC 3557	11 09 57.62	−37 32 21.0	11.40	−5.0	E	E3	3029	36.0	0.426	
364	NGC 3568	11 10 48.58	−37 26 53.1	12.84	5.1	Sc	SB(s)c:	2437	27.3	0.470	
365	NGC 3585	11 13 17.09	−26 45 17.2	10.83	−4.9	E	E6	1409	17.6	0.276	
366	NGC 3621	11 18 16.54	−32 48 50.6	10.10	6.8	SBcd	SA(s)d	727	6.8	0.346	
367	NGC 3660	11 23 32.26	−08 39 30.6	12.76	3.9	Sbc	SB(r)bc	3678	55.5r	0.177	
368	NGC 3672	11 25 02.44	−09 47 43.0	12.12	4.9	Sc	SA(s)c	1862	25.3	0.177	
369	NGC 3673	11 25 12.86	−26 44 11.9	12.62	3.1	Sb	SB(rs)b	1941	23.3	0.242	
370	NGC 3706	11 29 44.42	−36 23 28.7	12.33	−3.1	E/S0	SA(rs)0 $^-$	2989	37.4	0.398	
371	NGC 3717	11 31 31.97	−30 18 27.9	12.22	3.0	Sb	SAb: spin	1734	18.5	0.283	
372	NGC 3763	11 36 30.17	−09 50 48.2	12.50	4.9	SABc	SAB(rs)c pec	5875	85.5r	0.130	
373	NGC 3783	11 39 01.73	−37 44 18.9	12.45	1.8	SBab	(R')SB(r)ab	2917	38.5	0.514	
374	NGC 3882	11 46 06.46	−56 23 28.0	12.80	4.1	SBbc	SB(s)bc	1826	23.5	1.671	
375	NGC 3885	11 46 46.45	−27 55 19.9	12.82	0.3	S0/a	SA(s)0/a	1952	27.8	0.316	
376	NGC 3887	11 47 04.59	−16 51 16.6	11.42	4.0	Sbc	SB(r)bc	1209	18.8	0.148	
377	NGC 3892	11 48 01.04	−10 57 43.5	12.86	−1.0	S0/a	SB(rs)0 $^+$	1742	27.2	0.119	
378	NGC 3904	11 49 13.22	−29 16 36.5	11.94	−5.0	E	E2–3:	1501	24.7	0.310	
379	NGC 3923	11 51 01.73	−28 48 21.5	10.76	−4.8	E	E4–5	1745	20.9	0.357	
380	NGC 3936	11 52 20.57	−26 54 21.4	12.83	4.3	SBbc	SB(s)bc: spin	2022	22.7	0.349	
381	NGC 3955	11 53 57.16	−23 09 51.5	12.62	0.3	S0/a	S0/a pec	1495	20.6	0.234	
382	NGC 3956	11 54 00.69	−20 34 02.3	12.84	5.1	SBc	SA(s)c:	1652	25.8	0.175	
383	NGC 3962	11 54 40.06	−13 58 29.9	11.75	−4.9	E	E1	1841	30.4	0.201	
384	NGC 3981	11 56 07.41	−19 53 45.2	12.55	4.0	Sbc	SA(rs)bc	1718	23.0	0.173	
385	NGC 4024	11 58 31.22	−18 20 48.4	12.84	−3.0	E/S0	SAB0 $^-$	1668	25.4	0.181	
386	NGC 4027	11 59 30.14	−19 15 55.5	11.71	7.4	SBcd	SB(s)dm	1671	25.6	0.181	
387	NGC 4030	12 00 23.61	−01 06 00.0	11.67	4.1	Sbc	SA(s)bc	1462	24.5	0.114	
388	NGC 4033	12 00 34.71	−17 50 33.5	12.89	−4.7	E	E6	1589	21.7	0.204	
389	NGC 4038	12 01 53.01	−18 52 03.4	10.93	8.8	SBm	SB(s)m pec	1634	27.4r	0.200	NED
390	NGC 4039	12 01 53.51	−18 53 10.3	11.19	9.0	SBm	SA(s)m pec	1619	27.3r	0.200	NED
391	NGC 4050	12 02 53.91	−16 22 24.9	12.84	2.0	Sab	SB(r)ab	1765	32.5	0.245	
392	NGC 4094	12 05 53.93	−14 31 35.3	12.51	5.8	Sc	SAB(rs)cd:	1437	19.9	0.244	
393	NGC 4105	12 06 42.32	−29 45 51.5	11.57	−4.7	E	E3	1864	27.3	0.263	
394	NGC 4106	12 06 44.80	−29 46 05.9	12.29	−1.4	S0/a	SB(s)0 $^+$	2158	26.2	0.261	NED
395	NGC 4112	12 07 09.47	−40 12 29.5	12.98	3.3	Sb	SAB(rs)b pec	2714	41.3r	0.416	extra
396	NGC 4219	12 16 27.33	−43 19 27.5	12.69	3.9	Sbc	SA(s)bc	1985	23.7	0.568	
397	NGC 4304	12 22 12.73	−33 29 04.5	12.51	4.0	Sbc	(R')SB(s)bc pec:	2630	36	0.297	
398	NGC 4373	12 25 13.61	−39 46 05.5	11.83	−3.1	E/S0	SAB(rs)0 $^-$:	3380	34.0	0.345	
399	NGC 4373A	12 25 37.69	−39 19 10.5	12.75	−1.9	S0	SA0 $^+$: spin	2990	27.8	0.363	
400	NGC 4462	12 29 21.13	−23 09 59.8	12.79	2.0	SBab	SB(r)ab	1795	27.7	0.432	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
401	NGC 4487	12 31 04.47	−08 03 14.6	12.21	5.9	Sc	SAB(rs)cd	1037	19.9	0.092	
402	NGC 4504	12 32 17.41	−07 33 48.9	12.45	6.1	SABc	SA(s)cd	996	18.6	0.108	
403	NGC 4546	12 35 29.47	−03 47 35.2	11.57	−2.8	E/S0	SB(s)0 $^-$	1050	17.3	0.146	
404	NGC 4592	12 39 18.69	−00 31 53.6	12.90	7.6	Sd	SA(s)dm:	1072	11.9	0.097	
405	NGC 4593	12 39 39.41	−05 20 38.9	12.89	3.0	Sb	(R)SB(rs)b	2492	44.0	0.106	
406	NGC 4594	12 39 59.39	−11 37 22.9	9.08	1.0	Sa	SA(s)a spin	1091	10.5	0.221	
407	NGC 4602	12 40 36.89	−05 07 57.9	12.86	4.3	SABb	SAB(rs)bc	2542	34.9	0.104	
408	NGC 4603	12 40 55.19	−40 58 34.9	12.46	5.0	SABc	SA(s)c?	2592	36.8	0.724	
409	NGC 4632	12 42 31.99	−00 04 57.3	12.63	5.1	Sc	SAc	1717	17.6	0.104	
410	NGC 4650	12 44 19.60	−40 43 54.2	12.67	0.1	S0/a	SB(s)0/a pec	2910	46.4	0.501	
411	NGC 4653	12 43 50.87	−00 33 40.2	12.73	6.1	SABc	SAB(rs)cd	2626	40.2	0.104	
412	NGC 4666	12 45 08.61	−00 27 42.9	11.80	4.8	SABc	SABc:	1517	18.2	0.107	
413	NGC 4684	12 47 17.52	−02 43 38.6	12.28	−1.2	S0/a	SB(r)0 $^+$	1573	20.5	0.118	
414	NGC 4691	12 48 13.64	−03 19 58.3	12.03	0.2	S0/a	(R)SB(s)0/a pec	1111	22.5	0.119	
415	NGC 4696	12 48 49.23	−41 18 39.3	11.86	−3.7	E	cD1 pec	2926	37.6	0.489	
416	NGC 4697	12 48 35.87	−05 48 02.4	10.42	−4.9	E	E6	1234	11.6	0.131	
417	NGC 4699	12 49 02.19	−08 39 51.7	10.56	2.9	SABb	SAB(rs)b	1429	24.7	0.149	
418	NGC 4700	12 49 08.23	−11 24 35.7	12.44	4.8	SBc	SB(s)c? spin	1406	15.6	0.203	
419	NGC 4705	12 49 24.95	−05 11 44.8	12.52	4.0	SABb	SAB(s)bc: spin	4296	49.4	0.123	
420	NGC 4709	12 50 03.91	−41 22 55.1	12.24	−4.8	E	E1	4632	36.9	0.512	
421	NGC 4727	12 50 57.19	−14 19 58.2	12.59	3.8	Sbc	SAB(r)bc pec:	7622	107.3r	0.227	
422	NGC 4731	12 51 01.16	−06 23 34.5	12.12	6.0	SBc	SB(s)cd	1494	19.8	0.139	
423	NGC 4742	12 51 48.01	−10 27 17.1	12.37	−4.8	E	E4:	7060	15.0	0.175	
424	NGC 4753	12 52 22.06	−01 11 58.3	11.12	−2.0	S0	I0	1395	19.6	0.146	
425	NGC 4760	12 53 07.23	−10 29 39.2	12.80	−4.9	E	E0?	4743	54.7	0.176	
426	NGC 4767	12 53 52.91	−39 42 51.4	12.55	−4.6	E	E	2972	36.2	0.460	
427	NGC 4775	12 53 45.65	−06 37 19.9	12.20	6.8	Scd	SA(s)d	1567	26.6	0.150	
428	NGC 4781	12 54 23.75	−10 32 13.6	11.66	6.8	Scd	SB(rs)d	1262	16.8	0.206	
429	NGC 4786	12 54 32.39	−06 51 33.7	12.81	−4.1	E	cD pec	4633	62.6	0.154	
430	NGC 4802	12 55 49.63	−12 03 18.7	12.34	−2.2	S0	SA(r)0?	1018	11.5	0.206	
431	NGC 4818	12 56 48.88	−08 31 31.0	12.06	2.1	SABa	SAB(rs)ab pec:	1065	21.5	0.143	
432	NGC 4825	12 57 12.26	−13 39 53.2	12.78	−3.1	E/S0	SA0 $^-$	4442	65.5r	0.213	
433	NGC 4835	12 58 07.93	−46 15 51.2	12.64	4.0	Sbc	SAB(rs)bc:	2188	25.5	0.439	
434	NGC 4856	12 59 21.23	−15 02 31.2	11.45	−0.1	S0/a	SB(s)0/a	1347	21.1	0.232	
435	NGC 4899	13 00 56.59	−13 56 38.9	12.45	4.9	SABc	SAB(rs)c:	2658	38.4	0.218	
436	NGC 4902	13 00 59.69	−14 30 48.5	11.79	2.9	Sb	SB(r)b	2625	39.2	0.215	
437	NGC 4930	13 04 05.21	−41 24 41.1	12.07	3.2	Sb	SB(rs)b	2584	24.1	0.476	
438	NGC 4933B	13 03 56.92	−11 29 48.1	12.61	−0.2	S0/a	S0/a pec	3236	48.8r	0.248	
439	NGC 4936	13 04 17.10	−30 31 34.2	12.06	−5.0	E	E0	3225	31.1	0.357	
440	NGC 4939	13 04 14.32	−10 20 22.3	11.92	3.9	Sbc	SA(s)bc	3109	40.8	0.176	
441	NGC 4941	13 04 13.09	−05 33 05.6	12.05	2.1	SABa	(R)SAB(r)ab:	1111	13.8	0.157	
442	NGC 4945	13 05 27.09	−49 28 02.1	9.29	6.1	SBc	SB(s)cd: spin	563	3.9	0.762	
443	NGC 4947	13 05 20.19	−35 20 14.4	12.71	3.4	Sb	SAB(r)b pec	2405	31.3	0.262	
444	NGC 4951	13 05 07.72	−06 29 37.8	12.58	6.0	SABc	SAB(rs)cd:	1179	16.1	0.203	
445	NGC 4958	13 05 48.87	−08 01 12.9	11.74	−2.0	S0	SB(r)0? spin	1117	20.9	0.205	
446	NGC 4965	13 07 09.36	−28 13 41.7	12.59	6.9	SABc	SAB(s)d	2265	32.2	0.328	
447	NGC 4976	13 08 37.55	−49 30 21.9	10.96	−4.6	E	E4 pec:	1412	12.5	0.790	
448	NGC 4981	13 08 48.69	−06 46 38.9	12.33	4.2	Sbc	SAB(r)bc	1681	24.1	0.182	
449	NGC 4984	13 08 57.22	−15 30 58.5	12.24	−0.7	S0/a	(R)SAB(rs)0 $^+$	1207	21.3	0.267	
450	NGC 4995	13 09 40.61	−07 49 59.9	12.01	3.0	SABb	SAB(rs)b	1768	27.2	0.188	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
451	NGC 5011	13 12 51.85	−43 05 46.4	12.39	−4.8	E	E1−2	3074	40.6	0.425	
452	NGC 5018	13 13 01.05	−19 31 05.8	11.94	−4.7	E	E3:	2849	40.2	0.412	
453	NGC 5026	13 14 13.62	−42 57 40.6	12.43	−0.1	S0/a	(R')SB(rs)0/a	3744	52.2r	0.441	
454	NGC 5042	13 15 30.99	−23 59 01.9	12.49	5.0	SABc	SAB(rs)c	1387	16.3	0.786	
455	NGC 5044	13 15 23.95	−16 23 07.6	11.80	−4.9	E	E0	2698	33.8	0.300	
456	NGC 5054	13 16 58.42	−16 38 04.4	11.85	4.0	Sbc	SA(s)bc	1741	19.2	0.356	
457	NGC 5061	13 18 05.11	−26 50 13.8	11.28	−4.9	E	E0	2041	26.0	0.295	
458	NGC 5068	13 18 54.72	−21 02 20.2	10.64	6.2	Sc	SAB(rs)cd	672	6.1	0.439	
459	NGC 5077	13 19 31.64	−12 39 24.9	12.37	−5.0	E	E3−4	2703	38.0	0.210	
460	NGC 5078	13 19 50.06	−27 24 36.5	12.17	0.7	Sa	SA(s)a: spin	2169	33.8r	0.277	
461	NGC 5084	13 20 16.81	−21 49 38.6	11.54	−1.8	S0	S0 spin	1726	26.4	0.505	
462	NGC 5087	13 20 24.95	−20 36 39.6	12.45	−3.0	E/S0	SA0:	1825	26.2	0.448	
463	NGC 5090	13 21 12.85	−43 42 16.9	12.42	−4.9	E	E2	3313	44.4	0.622	
464	NGC 5101	13 21 46.15	−27 25 49.2	11.58	0.1	S0/a	(R)SB(rs)0/a	1861	27.4	0.309	
465	NGC 5102	13 21 57.59	−36 37 48.1	10.28	−2.9	E/S0	SA0 $^-$	469	3.4	0.237	
466	NGC 5121	13 24 45.60	−37 40 55.6	12.47	0.8	Sa	(R')SA(s)a	1475	22.1	0.308	
467	NGC 5128	13 25 27.97	−43 01 05.1	7.73	−2.2	S0	S0 pec	548	3.7	0.496	Cen A
468	NGC 5134	13 25 18.52	−21 08 03.3	12.46	2.6	SABb	SA(s)b?	1756	11.0	0.390	
469	NGC 5135	13 25 44.01	−29 50 00.9	12.81	2.0	Sab	SB(s)ab	4108	60.2r	0.258	
470	NGC 5156	13 28 44.08	−48 55 00.4	12.52	4.1	SBbc	SB(r)b	2954	39.5	0.614	
471	NGC 5161	13 29 13.92	−33 10 25.5	12.01	5.0	Sc	SA(s)c:	2388	23.8	0.255	
472	NGC 5170	13 29 48.76	−17 57 59.4	12.10	4.8	Sc	SA(s)c: spin	1503	29.3	0.343	
473	NGC 5188	13 31 28.27	−34 47 39.1	12.88	3.0	Sb	(R')SAB(s)b pec:	2421	32.9	0.225	
474	NGC 5193	13 31 53.49	−33 14 03.3	12.85	−4.7	E	E pec:	3647	44.8	0.242	
475	NGC 5206	13 33 43.97	−48 09 04.0	11.99	−2.9	E/S0	(R')SB(rs)0 0 pec:	570	11.0r	0.518	
476	NGC 5236	13 37 00.92	−29 51 56.5	7.91	5.1	Sc	SAB(s)c	513	4.6	0.284	
477	NGC 5247	13 38 02.99	−17 53 02.3	11.17	4.5	SABb	SA(s)bc	1357	22.2	0.383	
478	NGC 5253	13 39 56.01	−31 38 25.0	10.75	8.0	S?	pec	403	3.5	0.241	
479	NGC 5254	13 39 37.89	−11 29 37.8	12.67	5.1	Sc	SA(rs)c:	2318	32.2	0.326	
480	NGC 5264	13 41 36.39	−29 54 47.1	12.55	9.3	SBm	IB(s)m	482	4.4	0.223	
481	NGC 5266	13 43 02.12	−48 10 09.9	12.53	−3.0	E/S0	SA0 $^-$	2992	40.8	0.383	
482	NGC 5292	13 47 40.05	−30 56 21.9	12.62	1.8	Sab	(R')SA(rs)ab	4467	64.9r	0.262	
483	NGC 5324	13 52 05.90	−06 03 29.7	12.74	5.0	Sc	SA(rs)c:	3044	44	0.125	
484	NGC 5328	13 52 53.30	−28 29 21.5	12.66	−4.7	E	E1:	4736	51.9	0.269	
485	NGC 5333	13 54 24.23	−48 30 44.9	12.81	−2.0	S0	SB(r)0 0 ?	2752	28.0	0.536	
486	NGC 5334	13 52 54.41	−01 06 52.5	12.76	5.0	Sc	SB(rs)c:	1382	24.7	0.198	
487	NGC 5339	13 54 00.26	−07 55 50.1	12.86	1.1	Sa	SB(rs)a pec	2734	41.4r	0.156	
488	NGC 5408	14 03 20.56	−41 22 41.8	12.21	10.0	IB	IB(s)m	507	4.9	0.298	
489	NGC 5419	14 03 38.71	−33 58 41.7	11.97	−4.3	E	E	4153	46.8	0.311	
490	NGC 5426	14 03 24.85	−06 04 08.8	12.84	5.0	Sc	SA(s)c pec	2620	35.9	0.122	NED
491	NGC 5427	14 03 26.05	−06 01 50.9	12.06	4.9	SABc	SA(s)c pec	2619	33.8	0.121	NED
492	NGC 5468	14 06 34.89	−05 27 10.7	12.73	6.0	SABc	SAB(rs)cd	2842	46.7	0.106	
493	NGC 5483	14 10 25.04	−43 19 28.4	11.90	5.0	Sc	SA(s)c	1774	24.7	0.355	
494	NGC 5506	14 13 14.86	−03 12 27.3	12.88	1.6	Sab	Sa pec spin	1815	28.7	0.257	
495	NGC 5516	14 15 54.67	−48 06 53.6	13.01	−2.9	E/S0	SA(s)0 $^-$?	4123	72.2	0.865	extra
496	NGC 5530	14 18 27.27	−43 23 17.4	11.86	4.2	SABb	SA(rs)bc	1196	14.3	0.502	
497	NGC 5556	14 20 34.06	−29 14 30.3	12.81	7.0	Scd	SAB(rs)d	1381	18.8	0.302	
498	NGC 5597	14 24 27.43	−16 45 45.8	12.78	5.7	Sc	SAB(s)cd	2683	38.6	0.347	
499	NGC 5643	14 32 40.71	−44 10 27.9	10.77	4.9	Sc	SAB(rs)c	1199	16.9	0.728	
500	NGC 5688	14 39 35.14	−45 01 08.4	12.59	4.8	Sc	SAB(rs)c	2798	36.5	0.655	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
501	NGC 5713	14 40 11.49	−00 17 20.0	12.09	4.1	SABb	SAB(rs)bc pec	1890	23.8	0.170	
502	NGC 5728	14 42 23.88	−17 15 11.0	12.48	1.2	Sa	SAB(r)a:	2788	29.1	0.438	
503	NGC 5786	14 58 56.26	−42 00 47.8	12.17	4.1	Sbc	(R')SB(s)bc	2991	26.3	0.419	
504	NGC 5791	14 58 46.19	−19 16 00.8	12.59	−4.7	E	E6:	3318	36.4	0.399	
505	NGC 5792	14 58 22.66	−01 05 27.6	12.52	3.1	Sb	SB(rs)b	1924	25.6	0.252	
506	NGC 5796	14 59 24.08	−16 37 26.0	12.85	−5.0	E	E0−1	2964	38.2	0.449	
507	NGC 5812	15 00 55.66	−07 27 26.6	12.30	−5.0	E	E0	1949	27.7	0.375	
508	NGC 5833	15 11 53.68	−72 51 33.5	12.74	4.2	Sbc	SA(s)bc pec:	3029	39.3	0.612	
509	NGC 5861	15 09 16.07	−11 19 17.9	12.47	4.9	SABc	SAB(rs)c	1855	29.2	0.466	
510	NGC 5878	15 13 45.69	−14 16 11.5	12.54	3.1	Sb	SA(s)b	1989	30.5	0.615	
511	NGC 5885	15 15 04.16	−10 05 09.5	12.27	5.1	SABc	SAB(r)c	2000	30.7	0.445	
512	NGC 5892	15 13 48.17	−15 27 49.4	13.27	7.0	SABc	SA(s)d	2285	33.7	0.428	extra
513	NGC 5898	15 18 13.58	−24 05 52.2	12.37	−4.8	E	E0	2164	29.6	0.628	
514	NGC 5903	15 18 36.51	−24 04 06.7	12.17	−4.9	E	E2	2523	31.7	0.637	
515	NGC 5915	15 21 33.03	−13 05 30.7	12.78	2.4	SBab	SB(s)ab pec	2283	33.7	0.613	
516	NGC 5938	15 36 26.18	−66 51 34.4	12.53	4.0	SBbc	SB(rs)bc	3477	27.5	0.659	
517	NGC 5967	15 48 15.89	−75 40 22.5	12.71	5.2	SABc	SAB(rs)c:	2922	37.2	0.432	
518	NGC 6118	16 21 48.58	−02 17 00.5	12.30	6.0	Sc	SA(s)cd	1572	23.1	0.679	
519	NGC 6156	16 34 52.52	−60 37 07.7	12.49	5.0	Sc	SAB(rs)c pec:	3250	45.6r	0.744	
520	NGC 6215	16 51 06.84	−58 59 35.3	11.99	5.0	Sc	SA(s)c	1559	20.5	0.712	
521	NGC 6221	16 52 46.29	−59 13 00.8	10.77	5.0	Sc	SB(s)c	1481	12.5	0.712	
522	NGC 6300	17 16 59.49	−62 49 13.7	11.01	3.2	SBb	SB(rs)b	1110	15.1	0.420	
523	NGC 6392	17 43 30.28	−69 47 06.6	12.48	1.9	SABa	(R')SAB(rs)ab:	3720	50.0r	0.299	
524	NGC 6438	18 22 17.48	−85 24 07.4	12.14	−2.0	S0	Ring	3601	29.8	0.725	NED
525	NGC 6438A	18 22 35.49	−85 24 22.8	12.73	10.0	I	Ring	2516	30.9	0.726	NED
526	NGC 6492	18 02 48.34	−66 25 49.8	12.40	3.9	Sbc	SA(rs)bc:	4331	70	0.270	
527	NGC 6673	18 45 06.33	−62 17 49.5	12.49	−3.9	E	SAB(s)0 $^-$:	1140	13.6	0.463	
528	NGC 6684	18 48 57.83	−65 10 23.9	11.30	−1.9	S0	(R')SB(s)0 0	862	12.4	0.290	
529	NGC 6699	18 52 02.08	−57 19 14.4	12.77	4.0	SABb	SAB(rs)bc:	3347	45.8r	0.379	
530	NGC 6744	19 09 46.11	−63 51 26.7	9.13	4.1	SABb	SAB(r)bc	840	9.5	0.185	
531	NGC 6753	19 11 23.58	−57 02 57.4	11.93	2.9	Sb	(R)SA(r)b	3126	42.6r	0.297	
532	NGC 6754	19 11 25.73	−50 38 31.6	12.89	3.3	Sb	SB(rs)b	3250	43.4	0.303	
533	NGC 6758	19 13 52.33	−56 18 35.8	12.59	−4.1	E	cD:	3406	41.2	0.280	VR band
534	NGC 6769	19 18 31.96	−60 31 33.9	12.58	3.0	SABb	SAB(r)b pec	3796	49.7r	0.263	
535	NGC 6770	19 18 37.28	−60 29 47.4	12.78	3.0	Sb	SAB(rs)b pec	3827	51.9r	0.264	
536	NGC 6782	19 23 57.82	−59 55 20.7	12.73	0.7	Sa	(R)SAB(r)a	3834	52.9r	0.257	
537	NGC 6788	19 26 49.73	−54 57 04.6	12.88	2.1	Sab	SA(s)ab	3168	46.5	0.224	
538	NGC 6810	19 43 34.39	−58 39 19.9	12.29	2.1	Sab	SA(s)ab: spin	1961	29.6	0.279	
539	NGC 6814	19 42 40.56	−10 19 25.0	12.30	3.9	SABb	SAB(rs)bc	1561	22.8	0.790	
540	NGC 6822	19 44 56.52	−14 48 32.6	9.36	10.0	IB	IB(s)m	−56	0.49	1.020	
541	NGC 6851	20 03 34.32	−48 17 04.2	12.68	−4.8	E	E:	3055	33.3	0.200	
542	NGC 6861	20 07 19.42	−48 22 12.4	12.09	−3.0	E/S0	SA(s)0 $^+$:	2806	31.8	0.234	
543	NGC 6868	20 09 53.98	−48 22 46.3	11.77	−4.8	E	E2	2844	30.6	0.237	
544	NGC 6872	20 16 56.37	−70 46 04.8	12.59	3.1	SBb	SB(s)b pec	4787	61.8r	0.201	
545	NGC 6876	20 18 19.09	−70 51 31.4	11.83	−4.9	E	E3	3893	39.9	0.194	
546	NGC 6887	20 17 17.29	−52 47 48.2	12.73	3.9	Sbc	SABc:	2701	33.5	0.206	
547	NGC 6893	20 20 49.61	−48 14 20.7	12.73	−2.0	S0	SAB(s)0 0	3046	39.9r	0.173	
548	NGC 6902	20 24 28.04	−43 39 12.3	11.86	2.8	SBb	SA(r)b	2788	37.5	0.173	
549	NGC 6907	20 25 06.65	−24 48 32.6	11.90	3.9	Sbc	SB(s)bc	3162	37.5	0.274	
550	NGC 6909	20 27 38.91	−47 01 36.8	12.76	−4.1	E	cD:	2714	33.9	0.162	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
551	NGC 6923	20 31 39.01	−30 49 54.6	12.68	3.1	SBb	SB(rs)b:	2838	36.6	0.383	
552	NGC 6925	20 34 20.45	−31 58 49.6	12.12	4.0	Sbc	SA(s)bc	2790	31.2	0.252	
553	NGC 6935	20 38 20.18	−52 06 37.7	12.83	1.1	SABa	(R')SA(r)a	4486	60.3r	0.151	
554	NGC 6942	20 40 37.79	−54 18 10.8	12.77	−0.1	S0/a	(R')SB(rs)0/a:	3603	43.0r	0.202	
555	NGC 6943	20 44 33.63	−68 44 51.4	12.04	5.9	SABc	SAB(r)cd:	3117	34.4	0.215	
556	NGC 6958	20 48 42.57	−37 59 50.7	12.68	−3.9	E	cD	2700	33.1	0.194	
557	NGC 7029	21 11 51.99	−49 17 01.2	12.67	−4.7	E	E6:	2810	36.2	0.159	
558	NGC 7038	21 15 07.48	−47 13 13.3	12.31	4.9	SABc	SAB(s)c:	4934	62.7	0.148	
559	NGC 7041	21 16 32.33	−48 21 48.5	12.31	−3.0	E/S0	SA(rs)0 $^-$:	1923	24.9	0.172	
560	NGC 7049	21 19 00.26	−48 33 43.5	11.64	−1.9	S0	SA(s)9 0	2211	28.8	0.234	
561	NGC 7059	21 27 21.45	−60 00 52.5	12.45	5.1	SABc	SAB(rs)c	1734	32.1	0.140	
562	NGC 7070	21 30 25.35	−43 05 13.5	12.80	5.9	Sc	SA(s)cd	2396	30.3	0.129	
563	NGC 7079	21 32 35.21	−44 04 03.2	12.50	−1.9	S0	SA(s)0 0	2746	33.9	0.134	
564	NGC 7083	21 35 44.60	−63 54 10.0	11.92	4.1	Sbc	SA(s)bc	3112	33.9	0.172	
565	NGC 7090	21 36 28.18	−54 33 19.9	11.31	5.1	Sc	SBc? spin	853	8.7	0.099	
566	NGC 7098	21 44 16.10	−75 06 40.6	12.58	1.0	Sa	(R)SAB(rs)a	2362	29.1	0.374	
567	NGC 7135	21 49 45.96	−34 52 34.2	12.86	−3.0	E/S0	SA0 $^-$ pec	2396	34.7	0.123	
568	NGC 7140	21 52 15.29	−55 34 10.7	12.72	3.7	SABb	SAB(rs)bc	2966	37.4	0.098	
569	NGC 7144	21 52 42.44	−48 15 13.6	11.70	−4.8	E	E0	1952	24.9	0.091	
570	NGC 7145	21 53 20.23	−47 52 56.3	12.57	−4.9	E	E0	1890	23.1	0.091	
571	NGC 7154	21 55 21.07	−34 48 51.4	12.90	8.8	Sm	SB(s)m pec:	2614	28.4	0.099	
572	NGC 7172	22 02 01.89	−31 52 11.5	12.87	1.2	Sa	Sa pec spin	2571	33.9	0.115	
573	NGC 7176	22 02 05.91	−31 58 48.8	12.39	−4.8	E	E pec:	2543	37.3	0.113	
574	NGC 7184	22 02 39.77	−20 48 45.5	11.80	4.7	SBc	SB(r)c	2619	33.6	0.141	
575	NGC 7192	22 06 50.04	−64 18 58.5	12.76	−4.0	E	cD:	2914	34.0	0.146	
576	NGC 7196	22 05 54.75	−50 07 09.5	12.59	−4.9	E	E:	2928	45.7	0.095	
577	NGC 7205	22 08 34.29	−57 26 33.2	11.64	4.2	Sbc	SA(s)bc	1689	19.5	0.098	BV band
578	NGC 7213	22 09 16.19	−47 09 59.7	11.71	0.7	Sa	SA(s)a:	1792	22	0.065	
579	NGC 7218	22 10 11.76	−16 39 40.6	12.50	5.6	Sc	SB(rs)cd	1662	24.9	0.141	
580	NGC 7285	22 28 36.95	−24 50 34.4	12.90	1.1	SBa	SB(rs)a pec1	4425	55.0r	0.105	
581	NGC 7307	22 33 52.53	−40 55 58.0	12.84	5.9	Sc	SB(s)cd pec:	2087	26.4	0.067	
582	NGC 7314	22 35 46.15	−26 03 01.3	11.68	4.3	SABb	SAB(rs)bc	1425	18.9	0.092	
583	NGC 7329	22 40 24.17	−66 28 43.8	12.17	3.2	SBb	SB(r)b	3248	42.6	0.116	
584	NGC 7361	22 42 18.17	−30 03 29.2	12.82	5.1	Sc	S(r)c?	1246	17.6	0.072	
585	NGC 7371	22 46 03.73	−11 00 04.0	12.81	0.2	S0/a	(R)SA(r)0/a:	2685	31.2	0.254	
586	NGC 7377	22 47 47.43	−22 18 43.7	12.42	−1.1	S0/a	SA(s)0 $^+$	3358	41.3r	0.121	
587	NGC 7392	22 51 48.71	−20 36 29.3	12.61	3.7	SBbc	SA(s)bc	3124	45.8	0.144	
588	NGC 7410	22 55 00.88	−39 39 40.4	11.95	1.0	SBa	SB(s)a	1690	20.1	0.051	
589	NGC 7412	22 55 45.72	−42 38 31.1	11.92	3.4	SBb	SB(s)b	1716	12.5	0.050	
590	NGC 7418	22 56 36.09	−37 01 47.3	11.84	5.8	Sc	SAB(rs)cd	1446	18.1	0.069	
591	NGC 7421	22 56 54.31	−37 20 50.1	12.78	4.0	Sbc	SB(rs)bc	1830	20.9r	0.064	
592	NGC 7424	22 57 18.37	−41 04 13.8	11.54	5.9	Sc	SAB(rs)cd	940	11.5	0.046	
593	NGC 7456	23 02 10.32	−39 34 09.5	12.43	5.9	Sc	SA(s)cd:	1209	16.7	0.046	
594	NGC 7496	23 09 47.28	−43 25 40.3	12.90	3.2	Sb	SB(s)b	1647	20.1	0.042	
595	NGC 7507	23 12 07.55	−28 32 21.9	11.59	−4.9	E	E0	1562	22.5	0.206	
596	NGC 7513	23 13 14.03	−28 21 27.1	12.64	3.0	SBb	(R')SB(s)b pec	1569	19.4	0.176	
597	NGC 7531	23 14 48.39	−43 35 59.3	11.89	4.1	SABb	SAB(r)bc	1596	23.6	0.045	
598	NGC 7552	23 16 10.68	−42 35 04.6	11.19	2.2	Sab	(R')SB(s)ab	1588	17.2	0.061	
599	NGC 7582	23 18 23.53	−42 22 13.6	11.37	2.0	SBab	(R')SB(s)ab	1572	20.6	0.061	
600	NGC 7585	23 18 01.31	−04 39 01.0	12.45	−1.2	S0/a	(R')SA(s)0 $^+$ pec	3433	43.5r	0.241	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (h m s)	δ (J2000) ($^{\circ}$ $'$ $''$)	B_T (mag)	T Type	Leda Type	RC3 Type	v_h (km s $^{-1}$)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
601	NGC 7590	23 18 54.74	−42 14 20.6	12.11	4.0	Sbc	SA(rs)bc:	1594	25.3	0.074	
602	NGC 7599	23 19 21.04	−42 15 25.9	12.05	5.1	SBc	SA(s)c	1673	20.9	0.075	
603	NGC 7606	23 19 04.76	−08 29 06.2	11.66	3.2	Sb	SA(s)b	2232	31.6	0.158	
604	NGC 7689	23 33 16.72	−54 05 39.6	12.14	6.0	SABc	SAB(rs)cd	1973	25.2	0.051	
605	NGC 7713	23 36 14.96	−37 56 16.6	11.87	6.9	Scd	SB(r)d:	691	10.3	0.072	
606	NGC 7721	23 38 48.61	−06 31 03.8	12.42	5.0	Sc	SA(s)c	2014	23.4	0.144	
607	NGC 7723	23 38 57.00	−12 57 39.9	11.93	3.1	SBb	SB(r)b	1868	27.5	0.127	
608	NGC 7727	23 39 53.75	−12 17 34.0	11.60	1.0	SABa	SAB(s)a pec	1848	23.3	0.147	
609	NGC 7755	23 47 51.69	−30 31 18.8	12.34	4.8	Sc	SB(rs)c:	2961	31.5	0.069	
610	NGC 7793	23 57 49.83	−32 35 27.7	9.77	7.0	Scd	SA(s)d	229	4.4	0.084	NED
611	NGC 7796	23 58 59.71	−55 27 29.8	12.43	−4.1	E	cD	3372	49.9	0.044	
612	PGC 143	00 01 58.14	−15 27 39.9	11.16	9.8	IB	IB(s)m	−120	1.1	0.160	WLM
613	PGC 3853	01 05 04.85	−06 12 44.6	12.62	6.9	SABc	SAB(rs)d	1094	12.6	0.571	MCG -01-03-085
614	PGC 25886	09 10 49.45	−08 53 26.8	11.92	3.1	SABb	SAB(rs)b: spin	1836	29.6r	0.206	UGCA 150
615	PGC 29653	10 10 59.52	−04 41 43.7	12.13	10.0	IB	IBm	324	1.4	0.188	Sextans A
616	PGC 48179	13 38 10.36	−09 48 08.5	12.83	8.9	SBm	SB(s)m	1300	22.7	0.207	DDO 180

NOTE.— Column 1: numerical index. Column 2: galaxy name. Columns 3 and 4: position of the nucleus of the galaxy determined using *I*-band images and **Astrometry.net**, unless otherwise noted, accurate to $0''.1$. Cases for which an astrometric solution could not be derived have positions taken from NED, as indicated in the notes in the last column. Column 5: total *B*-band magnitude, from HyperLeda. Column 6: morphological type index, from HyperLeda. Column 7: Hubble type, from HyperLeda. Column 8: Hubble type, from RC3. Column 9: heliocentric velocity, from RC3. Column 10: luminosity distance. Whenever possible, we list the mean redshift-independent distance from NED, or else (entries followed by “r”) calculated from the radial velocity reduced to the reference frame of the 3 K cosmic microwave background assuming $H_0 = 73$ km s $^{-1}$ Mpc $^{-1}$, $\Omega_m = 0.27$, and $\Omega_\Lambda = 0.73$. Column 11: Galactic extinction in the *B* band, from Schlegel et al. (1998), as compiled in NED. Column 12: Notes: “extra” = object not formally part of the main sample; “NED” = position taken from NED; “*V* band” = data only available for the *V* band; “*R* band” = data only available for the *R* band.

TABLE 2: SUMMARY OF OBSERVATIONS

Name	Run Code	UT Date (yyyy-mm-dd)	Filter	Exp. (s)	Airmass	Seeing ($''$)	Conditions	σ_{phot} (mag)	Depth (mag arcsec $^{-2}$)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
ESO 009-G010	I05N5	2004-04-19	<i>B</i>	2 \times 360	1.79	1.58	P	3.03E-02	27.19	
	I05N5	2004-04-19	<i>V</i>	2 \times 180	1.79	1.24	P	2.05E-02	26.84	
	I05N5	2004-04-19	<i>R</i>	2 \times 120	1.79	1.14	P	1.60E-02	26.33	
	I05N5	2004-04-19	<i>I</i>	2 \times 180	1.79	1.14	P	3.41E-02	24.90	
ESO 027-G001	I08N2	2005-09-04	<i>B</i>	2 \times 360	1.65	2.02	N	2.09E-01	27.18	
	I08N2	2005-09-04	<i>V</i>	2 \times 180	1.66	1.99	N	1.14E-01	26.52	
	I08N2	2005-09-04	<i>R</i>	2 \times 120	1.67	1.66	N	9.76E-02	26.15	
	I08N2	2005-09-04	<i>I</i>	2 \times 180	1.66	1.68	N	9.24E-02	25.35	
ESO 027-G008	I08N2	2005-09-04	<i>B</i>	2 \times 360	1.58	1.53	N	2.09E-01	27.76	
	I08N2	2005-09-04	<i>V</i>	2 \times 180	1.58	1.50	N	1.14E-01	27.17	
	I08N2	2005-09-04	<i>R</i>	2 \times 120	1.58	1.55	N	9.76E-02	26.40	
	I08N2	2005-09-04	<i>I</i>	2 \times 180	1.58	1.30	N	9.24E-02	25.22	
ESO 056-G115	I08N2	2005-09-04	<i>B</i>	2 \times 360	1.39	1.42	N	...	...
	I08N2	2005-09-04	<i>V</i>	2 \times 180	1.41	1.24	N	...	...
	I08N2	2005-09-04	<i>R</i>	2 \times 120	1.43	1.37	N	...	...
	I08N2	2005-09-04	<i>I</i>	2 \times 180	1.40	1.24	N	...	...
ESO 060-G019	I04N3	2004-01-18	<i>B</i>	2 \times 360	1.31	1.06	N	2.09E-01	27.63	
	I04N3	2004-01-18	<i>V</i>	2 \times 180	1.30	1.01	N	1.14E-01	26.73	
	I04N3	2004-01-18	<i>R</i>	2 \times 120	1.30	1.01	N	9.76E-02	26.31	
	I04N3	2004-01-18	<i>I</i>	2 \times 180	1.30	0.78	N	9.24E-02	24.83	
ESO 091-G003	I05N5	2004-04-18	<i>B</i>	2 \times 360	1.22	0.86	P	2.53E-02	27.31	
	I05N5	2004-04-19	<i>V</i>	2 \times 180	1.21	0.98	P	1.70E-02	26.72	
	I05N5	2004-04-19	<i>R</i>	2 \times 120	1.21	0.78	P	1.33E-02	26.17	
	I05N5	2004-04-18	<i>I</i>	2 \times 180	1.21	0.70	P	2.86E-02	24.71	
ESO 097-G013	I02N6	2003-05-29	<i>B</i>	2 \times 360	1.27	1.27	N	...	...
	I02N6	2003-05-29	<i>V</i>	2 \times 180	1.28	1.32	N	...	...
	I02N6	2003-05-29	<i>R</i>	2 \times 120	1.29	1.06	N	...	...
	I02N6	2003-05-29	<i>I</i>	2 \times 180	1.26	0.91	N	...	...
ESO 121-G006	I04N4	2004-01-19	<i>B</i>	2 \times 360	1.21	0.88	P	9.38E-02	27.52	
	I04N4	2004-01-19	<i>V</i>	2 \times 180	1.23	0.83	P	4.24E-02	27.19	
	I04N4	2004-01-19	<i>R</i>	2 \times 120	1.23	0.78	P	3.72E-02	26.75	
	I04N4	2004-01-19	<i>I</i>	2 \times 180	1.21	0.75	P	4.58E-02	25.34	
ESO 121-G026	I04N9	2004-01-25	<i>B</i>	2 \times 360	1.17	1.09	P	9.08E-02	27.70	
	I04N9	2004-01-25	<i>V</i>	2 \times 180	1.18	1.19	P	4.12E-02	27.42	
	I04N9	2004-01-25	<i>R</i>	2 \times 120	1.18	0.93	P	3.56E-02	27.07	
	I04N9	2004-01-25	<i>I</i>	2 \times 180	1.17	0.80	P	4.66E-02	25.72	
ESO 136-G012	I05N2	2004-04-16	<i>B</i>	2 \times 360	1.22	1.14	N	2.98E-01	25.68	
	I05N2	2004-04-16	<i>V</i>	2 \times 180	1.19	1.09	N	1.72E-01	25.79	
	I05N2	2004-04-16	<i>R</i>	2 \times 120	1.19	1.04	N	9.76E-02	24.84	
	I05N2	2004-04-16	<i>I</i>	2 \times 180	1.20	1.01	N	9.24E-02	23.62	

NOTE.— Column 1: galaxy name. Column 2: code for the observing run. Column 3: UT date of observations. Column 4: filter. Column 5: exposure time. Column 6: airmass. Column 7: FWHM seeing, measured from field stars. Column 8: conditions: “P” = photometric; “N” = nonphotometric. Column 9: uncertainty due to photometric calibration. Column 10: depth of the image. Column 11: Notes: (a) strong background gradient; (b) dust feature not flattened out; (c) water condensation on filter; (d) lost guide star, image slightly trailed; (e) CCD temperature high. (This table is available in its entirety in a machine-readable form in the online journal. A portion is shown here for guidance regarding its form and content.)

TABLE 3: ISOPHOTAL PARAMETERS DERIVED FROM CGS

Name	R_{20} (')	R_{50} (')	R_{80} (')	C	D_{25} (')	D_{25}^c (')	$D_{26.5}$ (')	$D_{26.5}^c$ (')	Scale (kpc/'')	e	i ($^\circ$)	PA ($^\circ$)	Σ
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
ESO 009-G010	0.26	0.57	0.96	3.79	2.42	2.72	3.17	3.57	9.86	0.653 \pm 0.05	73.2 \pm 5	173.6 \pm 2.2	0.0136
ESO 027-G001	0.34	0.69	1.14	3.44	2.71	3.22	4.18	4.96	5.33	0.286 \pm 0.011	45.6 \pm 0.9	113.8 \pm 7.9	0.0148
ESO 027-G008	0.40	0.72	1.09	2.56	2.95	3.10	3.88	4.08	9.02	0.279 \pm 0.006	45.0 \pm 0.5	139 \pm 6	0.0132
ESO 056-G115	...	...	...	...	...	...	...	...	0.01	0.691 \pm 0.05	76.1 \pm 5	...	0.0529
ESO 060-G019	0.22	0.60	1.15	6.05	2.40	2.60	3.95	4.28	5.38	...	...	145 \pm 6	0.0196
ESO 091-G003	0.17	0.49	1.00	6.25	2.60	3.15	3.49	4.22	6.05	0.291 \pm 0.05	46.0 \pm 5	67.3 \pm 0.6	0.0107
ESO 097-G013	0.77	2.18	3.81	5.08	...	...	...	...	1.22	0.382 \pm 0.018	53.3 \pm 1.4	38 \pm 6	0.0422
ESO 121-G006	0.41	0.96	1.90	6.05	3.68	3.66	5.66	5.62	5.56	0.739 \pm 0.05	80.2 \pm 5	52 \pm 6	0.0117
ESO 121-G026	0.29	0.59	1.13	4.23	2.84	2.92	3.97	4.09	11.84	0.278 \pm 0.033	44.9 \pm 2.8	121.0 \pm 2.4	0.0134
ESO 136-G012	0.18	0.44	0.84	5.00	1.77	2.30	3.22	4.16	10.83	0.152 \pm 0.05	32.8 \pm 5	114 \pm 6	0.0158

NOTE.— Column 1: galaxy name. Columns 2–4: radius enclosing 20%, 50%, and 80% of the light in the B band. Column 5: concentration parameter, defined by $C = R_{80}/R_{20}$. Columns 6 and 7: diameter at $\mu_B = 25.0$ and 26.5 mag arcsec $^{-2}$. Columns 8 and 9: diameter at $\mu_B = 25.0$ and 26.5 mag arcsec $^{-2}$, corrected for Galactic extinction and inclination effect, following the prescription of Bottinelli et al. (1995). Column 10: scale to convert from arcmin to kpc. Column 11: ellipticity of the photometric major axis in the I band. Column 12: inclination angle derived from the ellipticity (Equation 26), for galaxies with $T > -3.5$. Column 13: position angle of the photometric major axis in the I band. Column 14: sum of the rms fluctuations in the star-cleaned B -band structure map. (This table is available in its entirety in a machine-readable form in the online journal. A portion is shown here for guidance regarding its form and content.)

TABLE 4: MAGNITUDES DERIVED FROM CGS

Name	B_{25} (mag)	B_{tot} (mag)	V_{25} (mag)	V_{tot} (mag)	R_{25} (mag)	R_{tot} (mag)	I_{25} (mag)	I_{tot} (mag)	$M_{B_{25}}$ (mag)	$M_{B_{\text{tot}}}$ (mag)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
ESO 009-G010	13.08±0.03	12.99±0.03	12.29±0.02	12.23±0.02	11.64±0.02	11.61±0.02	10.84±0.03	10.82±0.03	−20.18±0.03	−20.27±0.03
ESO 027-G001	12.67±0.21	12.53±0.21	12.02±0.11	11.92±0.11	11.48±0.10	11.41±0.10	10.77±0.09	10.74±0.09	−19.50±0.21	−19.64±0.21
ESO 027-G008	13.29±0.21	13.22±0.21	12.44±0.11	12.41±0.11	11.73±0.10	11.72±0.10	11.02±0.09	11.01±0.09	−19.61±0.21	−19.68±0.21
ESO 056-G115	...	...	...	...	...	...	...	...	...	...
ESO 060-G019	13.10±0.21	12.87±0.21	12.58±0.11	12.43±0.11	12.03±0.10	11.94±0.10	11.27±0.09	11.21±0.09	−18.67±0.21	−18.90±0.21
ESO 091-G003	13.13±0.03	13.01±0.03	12.19±0.02	12.15±0.02	11.48±0.01	11.45±0.01	10.52±0.03	10.80±0.03	−19.43±0.03	−19.55±0.03
ESO 097-G013	...	...	...	...	...	...	...	...	...	...
ESO 121-G006	13.47±0.09	13.22±0.09	12.73±0.04	12.61±0.04	12.05±0.04	11.98±0.04	11.16±0.05	11.12±0.05	−18.16±0.09	−18.41±0.09
ESO 121-G026	12.65±0.09	12.51±0.09	12.01±0.04	11.94±0.04	11.42±0.04	11.39±0.04	10.74±0.05	10.73±0.05	−20.59±0.09	−20.73±0.09
ESO 136-G012	14.15±0.30	13.81±0.30	13.46±0.17	13.33±0.17	12.89±0.10	12.79±0.10	11.95±0.09	11.83±0.09	−19.92±0.30	−20.26±0.30

NOTE.— Column 1: galaxy name. Columns 2, 4, 6, and 8: total apparent magnitudes within the 25 mag arcsec^{−2} isophote. Columns 3, 5, 7, and 9: total apparent magnitudes within the last measured point. Columns 10 and 11: absolute magnitudes in the B band, corrected for Galactic extinction as listed in Table 1. (This table is available in its entirety in a machine-readable form in the online journal. A portion is shown here for guidance regarding its form and content.)

TABLE 5: EFFECTIVE SURFACE BRIGHTNESSES

Name	$\mu_e(B)$ (mag arcsec ⁻²)	$\mu_e(V)$ (mag arcsec ⁻²)	$\mu_e(R)$ (mag arcsec ⁻²)	$\mu_e(I)$ (mag arcsec ⁻²)
(1)	(2)	(3)	(4)	(5)
ESO 009-G010	22.99±0.026	22.31±0.022	21.64±0.021	20.86±0.024
ESO 027-G001	22.89±0.031	22.25±0.028	21.69±0.027	20.95±0.027
ESO 027-G008	22.43±0.044	21.64±0.039	20.95±0.037	20.30±0.036
ESO 056-G115	...	...	...	...
ESO 060-G019	22.93±0.054	22.48±0.051	22.01±0.045	21.32±0.049
ESO 091-G003	22.66±0.016	21.63±0.011	20.84±0.010	20.01±0.015
ESO 097-G013	...	...	...	...
ESO 121-G006	23.53±0.059	22.69±0.056	21.85±0.064	20.98±0.057
ESO 121-G026	22.51±0.027	21.77±0.025	21.16±0.021	20.43±0.014
ESO 136-G012	23.79±0.106	23.44±0.106	22.65±0.096	21.93±0.160

NOTE.— Column 1: galaxy name. Columns 2–5: surface brightness measured at the effective or half-light radius R_{50} . (This table is available in its entirety in a machine-readable form in the online journal. A portion is shown here for guidance regarding its form and content.)

TABLE 6: MULTIWAVELENGTH DATA

Name	S_{FUV} (Jy)	S_{NUV} (Jy)	U_T (mag)	J_T (mag)	H_T (mag)	K_T (mag)	S_{12} (Jy)	S_{25} (Jy)	S_{60} (Jy)	S_{100} (Jy)	log FIR (W m ⁻²)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
ESO 009-G010	10.039	9.280	9.089	1.64E−1	2.15E−1	1.82E+0	6.71E+0	−12.84
ESO 027-G001	10.106	9.405	9.166	2.28E−1	5.52E−1	4.32E+0	1.10E+1	−12.55
ESO 027-G008	10.248	9.500	9.313	<1.71E−1	<1.86E−1	1.39E+0	<5.07E+0	<−12.96
ESO 056-G115	0.80	...	...	...	2.78E+3	7.82E+3	8.29E+4	1.85E+5	−8.30
ESO 060-G019	11.138	10.545	10.248	1.64E−1	5.81E−1	2.63E+0	4.90E+0	−12.83
ESO 091-G003	9.630	8.921	8.654	<2.50E−1	<7.59E−1	5.05E−1	2.67E+0	−13.30
ESO 097-G013	12.79	6.235	5.353	4.984	1.88E+1	6.84E+1	2.49E+2	3.16E+2	−10.92
ESO 121-G006	10.94	10.122	9.374	8.981	5.80E−1	6.80E−1	6.11E+0	1.52E+1	−12.41
ESO 121-G026	9.903	9.252	9.007	1.37E−1	1.48E−1	1.26E+0	4.62E+0	−13.00
ESO 136-G012	11.266	10.691	10.439	<2.50E−1	<2.50E−1	1.57E+0	4.32E+0	−12.98

NOTE.— Column 1: galaxy name. Column 2: flux density in the *GALEX* FUV band (1350–1750 Å). Column 3: flux density in the *GALEX* NUV band (1750–2800 Å). Column 4: total magnitude in the *U* band (3500 Å), derived from the B_T magnitudes and $(U - B)_T$ colors given in HyperLeda. Columns 5–7: total magnitude in the *J* (1.2 μm), *H* (1.6 μm), and *K_s* (2.2 μm) band, derived from 2MASS. Columns 8–11: flux density in the *IRAS* 12 μm, 25 μm, 60 μm, and 100 μm band. Column 12: total flux between 42.5 and 122.5 μm, approximated by $\text{FIR} = 1.26 \times 10^{-14} (2.58 S_{60} + S_{100}) \text{ W m}^{-2}$ (Helou et al. 1988; Rice et al. 1988). (This table is available in its entirety in a machine-readable form in the online journal. A portion is shown here for guidance regarding its form and content.)

TABLE 7: KINEMATICS, ENVIRONMENT, AND H I FLUXES

Name	V_{\max} (km s ⁻¹)	V_{rot} (km s ⁻¹)	σ_* (km s ⁻¹)	$\Delta\theta$ (D_{25})	t_p	Environment	m_{21}^c (mag)	$M_{\text{H I}}/L_B$ (M_\odot/L_\odot)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ESO 009-G010	137.4± 2.0	143.5± 2.1	...	20.62	-4.404	G	15.28±0.19	0.070
ESO 027-G001	52.2± 2.4	73.0± 3.4	...	> 26.94	-3.243	G	13.88±0.26	0.219
ESO 027-G008	163.4± 2.7	231.0± 3.8	...	> 23.99	...	G	15.42±0.30	0.092
ESO 056-G115	26.9± 2.9	27.7± 3.0	...	> 0.93	...	G	2.69±0.31	0.487
ESO 060-G019	95.5± 1.6	...	...	24.00	-4.389	F	13.38±0.17	0.524
ESO 091-G003	151.8± 8.1	210.9±11.3	...	21.87	-5.220	G	14.69±0.27	0.115
ESO 097-G013	142.5± 5.4	177.6± 6.7	157.6±18.8	> 68.57	-7.765	F	10.70±0.21	0.014
ESO 121-G006	130.2± 1.5	132.1± 1.5	...	> 41.84	-7.279	G	12.74±0.19	0.172
ESO 121-G026	135.2± 1.5	191.4± 2.1	...	> 35.27	-4.726	F	13.63±0.19	0.473
ESO 136-G012	90.7± 3.7	167.6± 6.8	...	> 13.37	-1.644	G	13.93±0.14	0.168

NOTE.— Column 1: galaxy name. Column 2: apparent maximum rotation velocity of gas, from HyperLeda. Column 3: maximum rotation velocity corrected for inclination, using values from Table 3. No correction is applied for E galaxies, and V_{rot} is listed as a lower limit. Column 4: central stellar velocity dispersion, from HyperLeda. Column 5: projected angular separation, in units of the angular diameter D_{25} (Table 3), to the nearest neighboring galaxy having an apparent magnitude brighter than $B_T + 1.5$ mag and a systemic velocity within $v_h \pm 500$ km s⁻¹. Column 6: tidal parameter, as defined in Section 6.3. Column 7: environment: F = field; G = group; C = cluster. Column 8: H I (21 cm) flux, in magnitude units, defined such that $m_{21}^c = -2.5 \log f + 17.40$, where f is in units of Jansky km s⁻¹. Correction for self-absorption has been applied, as explained in HyperLeda. Column 9: H I mass normalized to the total B -band luminosity, using magnitudes from Table 1, corrected for Galactic extinction. (This table is available in its entirety in a machine-readable form in the online journal. A portion is shown here for guidance regarding its form and content.)

APPENDIX

IMAGE ATLAS

Figures 7.1–7.616 present the image atlas for the 605 galaxies in CGS; we also include the 11 extra galaxies that are not part of the formal sample. One full-page figure is devoted to each galaxy, ordered sequentially following the numerical indices listed in Table 1. The six panels of each figure show the composite color image, the star-cleaned composite color image, the *BVRI* stacked image, the structure map of the star-cleaned *B*-band image, and the *B*–*R* and *R*–*I* color index maps. Darker regions on the index maps correspond to redder colors. Each image is scaled to a dimension of $1.5D_{25}$, with north up and east to the left. We use an arcsinh stretch for the color composite, star-cleaned, and stacked images, while the structure and color index maps are shown on a linear stretch. We only display three sample pages for illustration (Figures 7(a)–7(c)); the full set of figures is available in the electronic version of the paper, as well as on the project Web site <http://cgs.obs.carnegiescience.edu>.

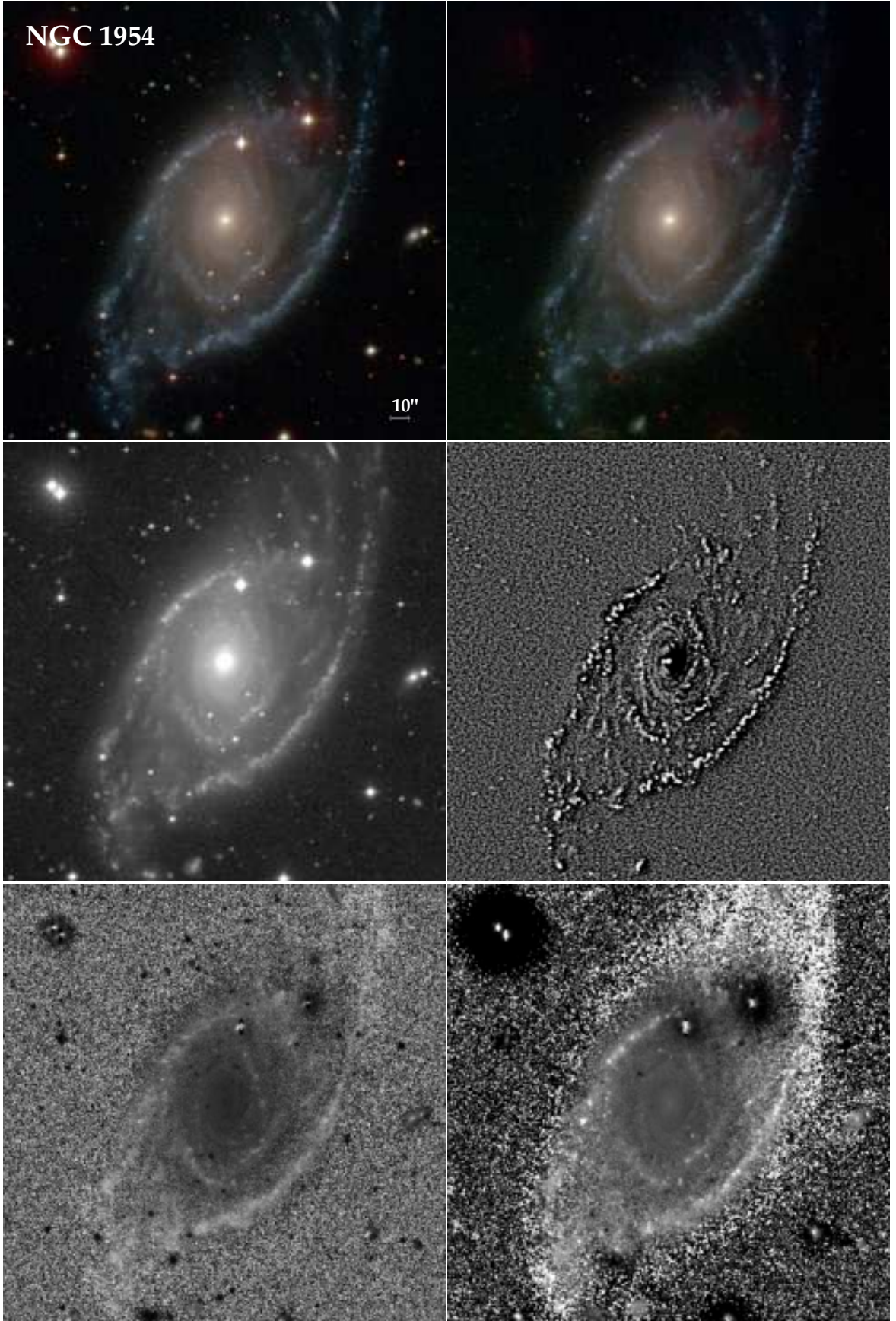


FIG. 7(A).— Sample page from the image atlas, illustrating NGC 1954. The panels show, from top to bottom, left to right: the composite color image, the star-cleaned composite color image, the *BVR I* stacked image, the structure map of the star-cleaned *B*-band image, and the *B*–*R* and *R*–*I* color index maps. Darker regions on the index maps correspond to redder colors. Each image is scaled to a dimension of $1.5D_{25}$, with north up and east to the left. The color composite, star-cleaned, and stacked images are shown on an arcsinh stretch, and the rest are shown on a linear stretch.

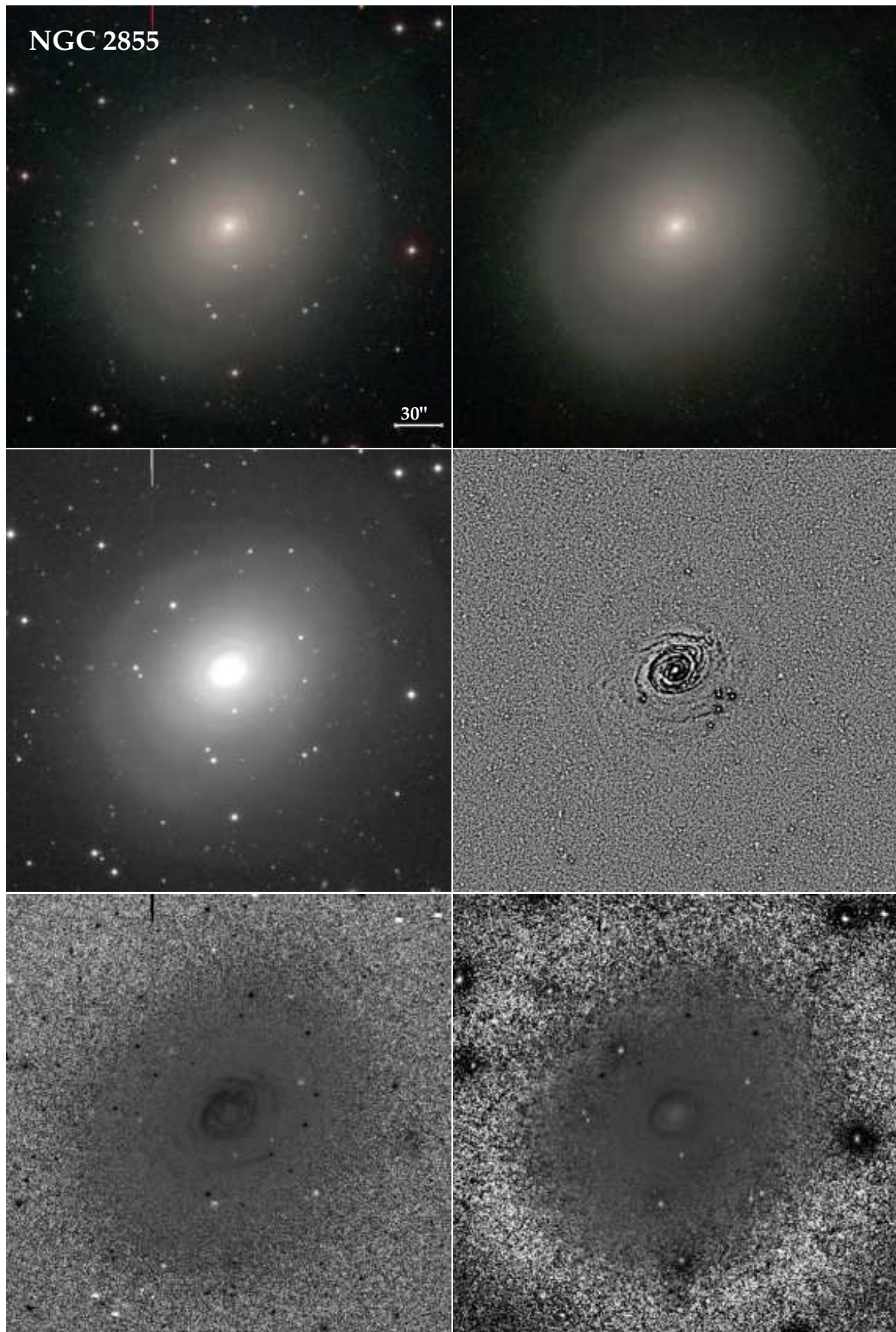


FIG. 7(B).— Sample page from the image atlas, illustrating NGC 2855. The panels show, from top to bottom, left to right: the composite color image, the star-cleaned composite color image, the $BVR I$ stacked image, the structure map of the star-cleaned B -band image, and the $B-R$ and $R-I$ color index maps. Darker regions on the index maps correspond to redder colors. Each image is scaled to a dimension of $1.5D_{25}$, with north up and east to the left. The color composite, star-cleaned, and stacked images are shown on an arcsinh stretch, and the rest are shown on a linear stretch.

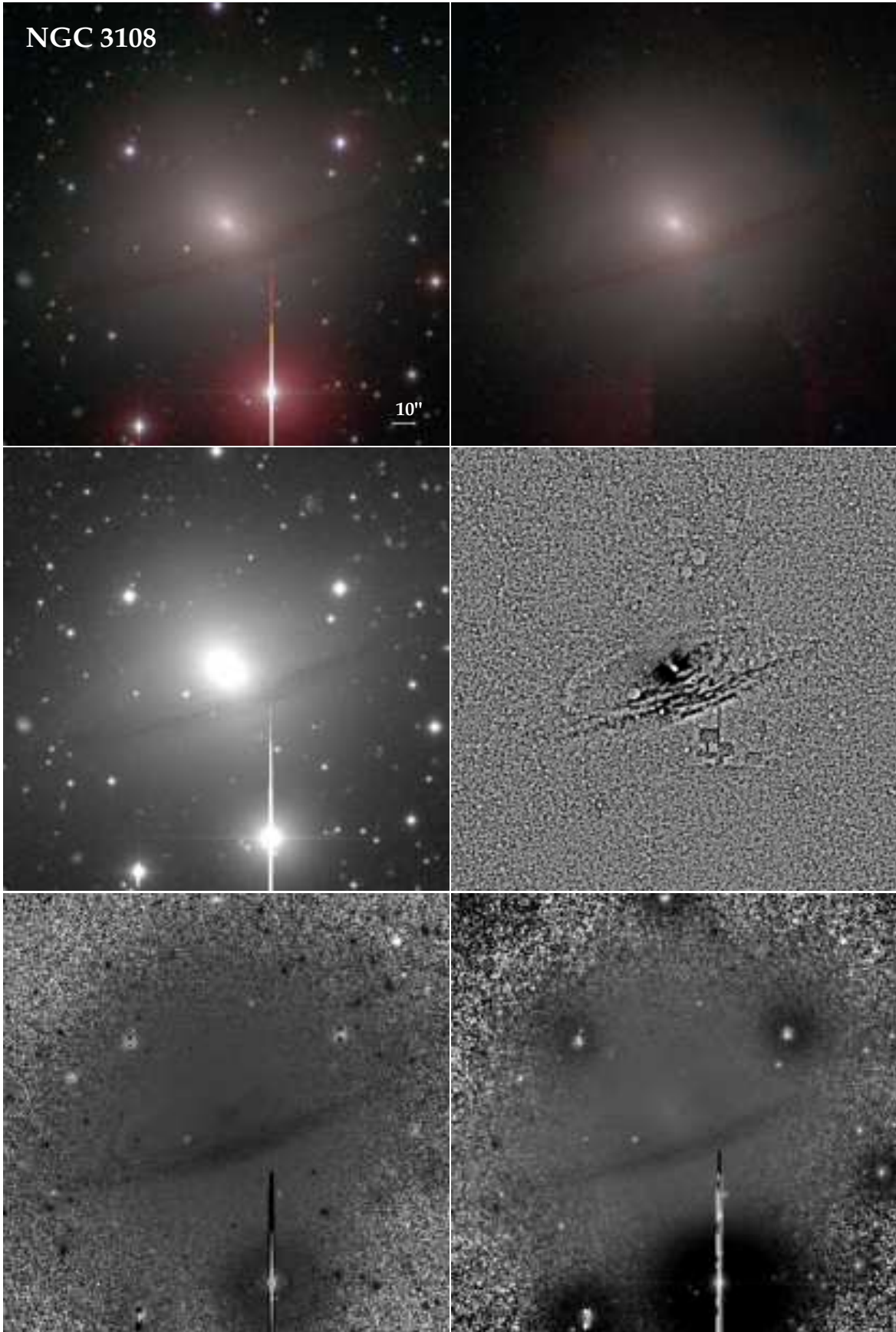


FIG. 7(C).— Sample page from the image atlas, illustrating NGC 3108. The panels show, from top to bottom, left to right: the composite color image, the star-cleaned composite color image, the $BVR I$ stacked image, the structure map of the star-cleaned B -band image, and the $B-R$ and $R-I$ color index maps. Darker regions on the index maps correspond to redder colors. Each image is scaled to a dimension of $1.5D_{25}$, with north up and east to the left. The color composite, star-cleaned, and stacked images are shown on an arcsinh stretch, and the rest are shown on a linear stretch.

TABLE 1: THE SAMPLE

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	ESO 009-G010	17 39 31.76	-85 18 37.3	12.70	3.9	Sbc	SA(s)bc:	2421	33.9	0.613	
2	ESO 027-G001	21 52 26.37	-81 31 51.1	12.78	5.0	SBc	SB(s)c	2559	18.3	0.860	
3	ESO 027-G008	22 23 04.19	-79 59 49.1	12.96	5.0	SBc	SB(s)c?	2491	31.0	0.447	extra
4	ESO 056-G115	05 23 34.52	-69 45 22.1	1.92	9.0	SBm	SB(s)m	320	0.050	0.324	LMC, NED
5	ESO 060-G019	08 57 26.71	-69 03 36.5	12.80	6.9	SBcd	SB(s)d	1443	18.5	0.433	
6	ESO 091-G003	09 13 31.59	-63 37 35.1	13.00	2.3	Sab	SA(rs)ab	1906	20.8	0.974	extra
7	ESO 097-G013	14 13 09.95	-65 20 21.2	12.03	3.4	Sb	SA(s)b:	439	4.2	6.276	Circinus, NED
8	ESO 121-G006	06 07 29.69	-61 48 26.9	10.74	5.1	Sc	Sc pec: spin	1211	19.1	0.221	
9	ESO 121-G026	06 21 38.68	-59 44 23.8	12.70	3.8	SBbc	SB(rs)bc	2264	40.7	0.196	
10	ESO 136-G012	16 02 35.49	-61 46 28.4	12.90	5.0	SBc	SB(s)c:	4370	37.2	1.220	
11	ESO 137-G018	16 20 58.39	-60 29 27.7	12.40	5.0	Sc	SA(s)c:	626	6.8	1.049	NED
12	ESO 137-G034	16 35 14.11	-58 04 48.1	12.39	0.4	S0/a	SAB(s)0/a?	2747	32.9	1.444	NED
13	ESO 137-G038	16 40 52.50	-60 23 39.5	12.89	4.1	SABb	SAB(r)bc:	3624	29.6r	1.066	
14	ESO 138-G005	16 53 53.52	-58 46 44.5	12.84	-3.1	E/S0	SB0 ⁰ ? pec	2648	37.0r	0.568	
15	ESO 138-G010	16 59 02.89	-60 12 56.6	11.62	7.7	Sd	SA(s)dm	1145	14.7	0.949	
16	ESO 138-G029	17 29 18.45	-62 27 54.7	12.89	-1.0	S0/a	(R)SAB(s)0 ⁺ pec	4637	64.0r	0.357	PGC 60379
17	ESO 183-G030	18 56 55.90	-54 32 43.2	12.63	-3.1	E/SO	SA0 ⁻ pec?	2706	31.8	0.373	
18	ESO 185-G054	20 03 27.00	-55 56 49.3	12.85	-4.8	E	E2	4416	59.3	0.286	
19	ESO 186-G062	20 34 02.12	-52 58 52.6	12.80	7.0	SBcd	SB(s)d	2547	32.4	0.214	
20	ESO 208-G021	07 33 56.26	-50 26 35.1	12.19	-3.1	E/SO	SAB0 ⁻	1051	17.0	0.747	
21	ESO 209-G009	07 58 15.45	-49 51 16.1	12.44	6.1	SBc	SB(s)cd: spin	1119	13.6	1.112	
22	ESO 213-G011	10 16 55.44	-48 52 51.9	12.09	5.1	Sc	SA(s)c	2741	27.5	0.919	
23	ESO 219-G021	13 02 21.04	-50 20 03.7	12.83	6.8	SABc	SAB(s)d	1374	14.2	0.842	
24	ESO 221-G026	14 08 23.68	-47 58 14.4	12.11	-4.9	E	E5 pec:	2980	12.4	0.912	
25	ESO 221-G032	14 12 09.17	-49 23 22.8	12.80	4.6	Sc	SA(r)c pec	2911	38.5	0.865	
26	ESO 265-G007	11 07 48.52	-46 31 33.5	12.54	6.0	SBc	SB(s)cd	1067	13.4	0.593	
27	ESO 269-G057	13 10 04.46	-46 26 14.3	12.54	1.9	SABa	(R')SAB(r)ab	3095	46.3	0.435	
28	ESO 270-G017	13 34 47.51	-45 32 52.3	12.13	8.7	SBm	SB(s)m:	828	7.6	0.477	
29	ESO 271-G010	14 00 46.40	-45 25 06.3	12.90	6.1	Sc	SAB(s)cd	1498	31.2	0.422	
30	ESO 273-G014	14 58 30.38	-47 41 56.7	12.90	9.7	IB	IB(s)m pec:	1056	9.5	1.321	
31	ESO 274-G001	15 14 13.43	-46 48 24.9	11.73	6.7	Scd	SA d: spin	524	5.1	1.108	
32	ESO 311-G012	07 47 34.05	-41 27 06.7	12.41	0.1	S0/a	S0/a? spin	1131	18.3r	1.658	
33	ESO 320-G026	11 49 50.29	-38 47 03.9	12.90	3.0	Sb	Sb	2754	43.9	0.470	
34	ESO 321-G025	12 21 42.92	-39 46 10.4	12.64	6.0	SBc	SB(rs)cd pec?	2148	32.2	0.382	
35	ESO 351-G030	01 00 10.73	-33 42 13.1	10.29	-3.1	E?	E?	108	0.087	0.077	Sculptor
36	ESO 356-G004	02 40 01.45	-34 26 49.9	9.09	-5.0	E	dE4	49	0.137	0.087	Fornax
37	ESO 358-G063	03 46 18.94	-34 56 33.4	12.57	5.5	Sc	I0?	1931	18.9	0.027	
38	ESO 362-G011	05 16 38.70	-37 06 08.6	12.77	4.1	Sbc	Sbc: spin	1346	18.4	0.207	
39	ESO 373-G008	09 33 21.57	-33 02 01.2	12.71	5.9	Sc	Scd spin	929	11.1	0.576	
40	ESO 380-G001	12 14 45.12	-35 30 35.1	12.88	2.8	Sb	(R')SB(s)b:	2688	27.4	0.326	
41	ESO 380-G006	12 15 34.27	-35 37 46.9	12.36	2.9	Sb	(R')SA(s)b:	2944	35.8	0.348	
42	ESO 383-G087	13 49 17.52	-36 03 37.2	11.70	7.9	Sd	SB(s)dm	330	2.7	0.306	
43	ESO 384-G002	13 51 19.34	-33 48 26.1	12.88	8.0	SBd	SB(s)dm	1389	17.5	0.276	
44	ESO 436-G027	10 28 53.54	-31 36 32.2	12.63	-1.8	S0	(R')SA(s)0 ⁰ pec	4244	63.5r	0.265	
45	ESO 440-G011	11 48 45.53	-28 17 37.1	12.75	6.8	Scd	SB(s)d:	1934	27.6	0.371	
46	ESO 442-G026	12 52 13.31	-29 50 26.4	12.71	-1.6	S0	SB0?	2860	43.2	0.350	
47	ESO 445-G089	14 01 04.03	-30 19 37.2	12.89	6.7	SBcd	SB(s)d pec:	2588	36.3	0.243	
48	ESO 479-G004	02 26 21.74	-24 17 23.6	12.79	8.2	SBd	SB(s)dm	1510	19.4	0.079	
49	ESO 494-G026	08 06 11.09	-27 31 41.2	12.63	3.4	SABb	SAB(s)b pec:	970	16.6r	1.818	
50	ESO 495-G021	08 36 15.19	-26 24 33.9	12.48	-5.0	E	I0? pec	874	10.5	0.481	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDAB Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
51	ESO 506-G004	12 21 49.03	-24 10 05.7	12.89	2.4	SABa	SAB(r)ab:	4017	65.4	0.333	
52	ESO 507-G025	12 51 31.83	-26 27 06.9	12.67	-3.1	E/SO	SA0 ⁻	3216	36.2	0.385	
53	ESO 556-G015	06 21 05.55	-20 02 54.6	12.79	1.6	SBab	SB(s)a pec	1981	26.1	0.601	UGCA 128
54	ESO 582-G012	15 26 08.02	-22 16 56.8	12.71	5.1	SABc	SAB(rs)c	2318	29.1	0.587	
55	IC 438	05 53 00.07	-17 52 34.1	13.08	5.0	SABc	SA(rs)c	3124	40.3	0.316	extra
56	IC 764	12 10 14.18	-29 44 11.6	12.75	5.1	SABc	SA(s)c?	2130	26.5	0.259	
57	IC 1459	22 57 10.58	-36 27 43.6	11.23	-5.0	E	E3-4	1663	26.9	0.068	
58	IC 1633	01 09 55.49	-45 55 51.9	12.57	-3.9	E	cD1	7268	97.0r	0.050	
59	IC 1953	03 33 41.81	-21 28 43.4	12.71	6.7	Scd	SB(rs)d	1866	22.6	0.130	
60	IC 1954	03 31 31.50	-51 54 17.6	12.10	3.4	Sb	SB(s)b:	1065	14.0	0.070	
61	IC 1993	03 47 04.83	-33 42 36.2	12.52	3.0	SABb	(R')SAB(rs)b	1099	13.6r	0.043	
62	IC 2000	03 49 07.66	-48 51 29.9	12.82	6.1	SBc	SB(s)cd: sp	980	15.9	0.042	
63	IC 2006	03 54 28.42	-35 58 01.5	12.51	-4.7	E	(R)SA0 ⁻	1366	19.1	0.048	
64	IC 2035	04 09 01.84	-45 31 03.2	12.80	-2.2	S0	S0 pec?	1467	16.5	0.058	
65	IC 2051	03 52 00.70	-83 49 50.9	11.89	4.0	SBbc	SB(r)bc:	1727	24.2	0.489	
66	IC 2056	04 16 24.47	-60 12 24.1	12.80	3.9	Sbc	(R)SAB(r)bc:	1131	20.5	0.080	
67	IC 2150	05 51 18.55	-38 19 13.7	13.49	4.9	SBc	SB(r)c?	3119	43.9	0.206	extra
68	IC 2163	06 16 27.98	-21 22 33.1	12.00	4.8	Sc	SB(rs)c pec	2703	24.9	0.374	NED
69	IC 2311	08 18 45.96	-25 22 11.2	12.51	-5.0	E	E0:	1836	26.1	0.619	
70	IC 2367	08 24 10.04	-18 46 32.3	12.71	3.2	Sb	SB(r)b	2448	25	0.440	
71	IC 2469	09 23 01.00	-32 26 58.9	12.00	2.0	SBab	SB(rs)ab	1665	23.1	0.609	
72	IC 2522	09 55 08.98	-33 08 13.8	12.79	5.1	Sc	SB(s)c pec	3013	31.4	0.402	
73	IC 2531	09 59 55.39	-29 37 01.3	12.89	4.9	Sc	Sc: spin	2474	36.8	0.355	
74	IC 2537	10 03 51.87	-27 34 15.1	12.78	5.0	Sc	SAB(rs)c	2788	38.4	0.414	
75	IC 2554	10 08 50.72	-67 01 52.4	12.64	4.1	SBbc	SB(s)bc pec:	1378	21.2	0.884	
76	IC 2560	10 16 18.69	-33 33 49.7	12.46	2.9	SBb	(R')SB(r)b:	2920	35.1	0.410	
77	IC 2597	10 37 47.31	-27 04 52.3	12.90	-3.7	E	cD4	2974	35.8r	0.302	
78	IC 2627	11 09 53.35	-23 43 33.2	12.68	4.4	SABb	SA(s)bc:	2085	29.5	0.519	
79	IC 2764	11 27 05.02	-28 58 48.6	13.18	-0.1	S0/a	(R)SA(rs)0/a	1617	27.6r	0.289	extra
80	IC 2995	12 05 46.97	-27 56 25.4	13.22	5.5	SBc	SB(s)c?	1829	20.3	0.282	extra
81	IC 3253	12 23 45.18	-34 37 19.8	12.67	5.1	Sc	SA(s)c:	2724	53.5	0.302	
82	IC 3370	12 27 37.33	-39 20 16.1	12.04	-4.9	E	E2-3	2930	28.0	0.402	
83	IC 3896	12 56 43.19	-50 20 48.8	12.21	-4.8	E	E	2106	28.7	0.951	
84	IC 4214	13 17 42.69	-32 06 05.8	12.40	1.8	SBab	(R')SB(r)ab	2313	27.3	0.255	
85	IC 4296	13 36 39.01	-33 57 56.6	11.63	-5.0	E	E	3728	49.6	0.265	
86	IC 4329	13 49 05.32	-30 17 44.8	12.33	-2.9	E/SO	SAB(s)0 ⁻	4545	65.9r	0.265	
87	IC 4351	13 57 54.19	-29 18 56.2	12.62	3.0	Sb	SA(s)b: spin	2664	32.7	0.251	
88	IC 4402	14 21 12.97	-46 17 51.3	12.06	3.3	Sb	SA(s)b? spin	1653	19.1	0.479	
89	IC 4444	14 31 38.62	-43 25 09.1	12.07	4.0	SABb	SAB(rs)bc:	1957	26.9	0.724	IC 4441
90	IC 4538	15 21 11.59	-23 39 30.1	12.87	4.9	SABc	SAB(s)c:	2859	31.7	0.556	
91	IC 4618	16 57 50.13	-76 59 34.6	12.90	4.1	SBbc	SB(rs)bc pec	3014	41.5r	0.360	
92	IC 4646	17 23 53.14	-59 59 57.7	12.43	4.9	Sc	SA(rs)c:	3171	30.3	0.467	
93	IC 4662	17 47 07.95	-64 38 34.1	12.12	9.8	IB	IBm	308	2.7	0.303	
94	IC 4710	18 28 37.58	-66 58 58.3	12.50	8.9	Sm	SB(s)m	740	8.9	0.384	
95	IC 4721	18 34 24.71	-58 29 47.7	12.39	5.7	SBc	SB(s)cd:	2241	21.9	0.337	
96	IC 4742	18 41 52.57	-63 51 42.9	13.07	-4.8	E	E1	4435	58.3	0.407	extra
97	IC 4765	18 47 18.13	-63 19 51.9	12.34	-3.9	E	cD4	4516	58.3	0.406	
98	IC 4797	18 56 29.68	-54 18 20.3	12.25	-3.9	E	cD pec?	2672	30.3	0.338	
99	IC 4808	19 01 07.62	-45 18 49.2	12.94	5.0	Sc	SA(s)c	5081	55.3	0.278	extra
100	IC 4831	19 14 43.78	-62 16 20.6	12.67	1.9	Sab	(R')SA(s)ab	4353	50.5	0.252	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
101	IC 4837A	19 15 16.19	-54 07 56.9	12.71	3.0	Sb	SA(s)b: spin	2847	38.0r	0.265	
102	IC 4845	19 20 22.42	-60 23 20.7	12.37	2.8	SBb	SA(rs)b:	3953	53.2r	0.256	
103	IC 4889	19 45 15.11	-54 20 38.6	12.03	-4.7	E	E5-6	2525	27.7	0.227	
104	IC 4901	19 54 23.55	-58 42 48.7	12.28	5.1	SABc	SAB(rs)c:	2134	21.9	0.238	
105	IC 4946	20 23 58.06	-43 59 42.8	12.62	0.2	S0/a	SAB(rs)0/a:	2912	37.9	0.187	
106	IC 4991	20 18 23.28	-41 03 00.3	12.64	-2.2	S0	SA(r)0 ⁰ ? pec	5702	75.0r	0.247	
107	IC 5011	20 28 33.78	-36 01 37.5	12.52	-2.0	S0	SB(s)0 ⁰ : pec	2301	29.1r	0.182	
108	IC 5052	20 52 06.55	-69 12 11.5	11.79	7.1	SBcd	SBd: spin	590	8.1	0.219	
109	IC 5152	22 02 41.11	-51 17 47.7	10.69	9.9	IAB	IA(s)m	120	1.7	0.106	
110	IC 5181	22 13 21.64	-46 01 02.7	12.66	-1.9	S0	SA0 spin	2017	24.8	0.085	
111	IC 5201	22 20 57.39	-46 02 09.7	11.95	6.1	Sc	SB(rs)cd	915	11.3	0.051	
112	IC 5240	22 41 52.35	-44 46 01.7	12.69	1.0	SBa	SB(r)a	1776	21.4	0.065	
113	IC 5250	22 47 19.68	-65 03 32.1	12.36	-2.8	E/S0	S0 pec?	3148	41.6r	0.141	
114	IC 5267	22 57 13.46	-43 23 45.1	11.37	-1.6	S0	SA(s)0/a	1714	26.1	0.054	
115	IC 5273	22 59 26.64	-37 42 10.2	12.74	5.7	SBc	SB(rs)cd:	1296	16.8	0.054	
116	IC 5325	23 28 43.37	-41 19 59.4	12.23	4.1	Sbc	SAB(rs)bc	1504	18.1	0.088	
117	IC 5328	23 33 16.40	-45 00 56.9	12.30	-4.5	E	E4	3079	34.6	0.063	
118	IC 5332	23 34 27.44	-36 06 03.6	11.23	6.6	SABc	SA(s)d	706	8.4	0.071	
119	NGC 24	00 09 56.15	-24 57 49.8	12.14	5.0	Sc	SA(s)c	554	6.9	0.084	
120	NGC 45	00 14 03.99	-23 10 55.5	11.39	7.8	SABd	SA(s)dm	468	9.9	0.090	
121	NGC 55	00 15 08.50	-39 13 13.0	9.59	8.7	SBm	SB(s)m: sp	125	1.9	0.057	NED
122	NGC 134	00 30 21.95	-33 14 38.2	11.26	4.0	SABb	SAB(s)bc	1579	19.2	0.077	
123	NGC 150	00 34 15.43	-27 48 12.7	12.13	3.3	SBb	SB(rs)b:	1585	21.9	0.062	
124	NGC 151	00 34 02.79	-09 42 19.4	12.25	4.1	Sbc	SB(r)bc	3747	46.5	0.140	
125	NGC 157	00 34 46.76	-08 23 47.2	11.05	4.4	SABb	SAB(rs)bc	1660	19.5	0.192	NED
126	NGC 210	00 40 34.95	-13 52 21.9	11.80	3.3	SABb	SAB(s)b	1635	19.7	0.094	
127	NGC 245	00 46 05.38	-01 43 24.3	12.82	3.3	Sb	SA(rs)b pec?	4074	51.3r	0.115	
128	NGC 247	00 47 08.46	-20 45 37.0	9.72	6.9	SABc	SAB(s)d	160	3.6	0.078	
129	NGC 253	00 47 32.86	-25 17 20.7	8.16	5.2	SABc	SAB(s)c	248	3.2	0.081	
130	NGC 254	00 47 27.59	-31 25 18.4	12.65	-1.2	S0/a	(R)SAB(r)0 ⁺	1622	17.1	0.095	
131	NGC 255	00 47 47.19	-11 28 07.5	12.31	4.2	Sbc	SAB(rs)bc	1593	20.0	0.115	
132	NGC 275	00 51 04.45	-07 03 55.6	12.72	5.9	SBc	SB(rs)cd pec	1745	21.9	0.242	
133	NGC 289	00 52 42.22	-31 12 20.9	11.79	3.8	SBbc	SB(rs)bc	1630	22.8	0.084	
134	NGC 300	00 54 53.48	-37 41 03.8	8.81	6.9	Scd	SA(s)d	142	1.9	0.055	NED
135	NGC 337	00 59 49.98	-07 34 34.9	12.12	6.8	SBcd	SB(s)d	1650	20.3	0.485	
136	NGC 434	01 12 14.10	-58 14 52.5	12.80	1.9	Sab	SAB(s)ab	4865	65.7r	0.095	
137	NGC 578	01 30 28.56	-22 40 01.5	11.60	5.1	Sc	SAB(rs)c	1630	21.2	0.053	
138	NGC 584	01 31 20.68	-06 52 04.6	11.53	-4.8	E	E4	1798	19.5	0.182	
139	NGC 596	01 32 51.85	-07 01 53.5	12.03	-4.2	E	cD pec?	1885	20.6	0.159	
140	NGC 613	01 34 18.17	-29 25 06.1	10.99	4.2	Sbc	SB(rs)bc	1484	24.9	0.083	
141	NGC 615	01 35 05.67	-07 20 24.7	12.53	2.9	Sb	SA(rs)b	1847	27.0	0.138	
142	NGC 625	01 35 04.63	-41 26 10.3	11.57	9.0	SBm	SB(s)m? sp	392	3.6	0.071	NED
143	NGC 636	01 39 06.52	-07 30 45.3	12.49	-4.9	E	E3	1854	25.4	0.110	
144	NGC 681	01 49 10.79	-10 25 34.7	12.82	1.6	SABa	SAB(s)ab sp	1757	33.6	0.149	
145	NGC 685	01 47 42.81	-52 45 42.5	11.75	5.1	Sc	SAB(r)c	1356	15.2	0.099	NED
146	NGC 701	01 51 03.84	-09 42 09.7	12.84	5.1	SBc	SB(rs)c	1832	22.5	0.109	
147	NGC 720	01 53 00.46	-13 44 18.4	11.41	-4.9	E	E5	1732	23.9	0.070	
148	NGC 779	01 59 42.61	-05 57 51.2	12.27	3.0	SABb	SAB(r)b	1392	18.2	0.116	
149	NGC 782	01 57 40.33	-57 47 24.4	12.67	3.0	SBb	SB(r)b	5982	80.1r	0.086	
150	NGC 895	02 21 36.42	-05 31 16.3	12.29	5.9	Sc	SA(s)cd	2288	29.6	0.110	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
151	NGC 908	02 23 04.51	-21 14 01.6	10.93	5.2	SABc	SA(s)c	1501	17.9	0.108	
152	NGC 922	02 25 04.44	-24 47 17.2	12.53	6.3	SBc	SB(s)cd pec	3088	50.7	0.085	
153	NGC 936	02 27 37.39	-01 09 21.4	11.16	-0.9	S0/a	SB(rs)0 ⁺	1341	20.7	0.152	
154	NGC 945	02 28 37.26	-10 32 20.5	12.89	4.6	SBc	SB(rs)c	4482	58.2r	0.109	
155	NGC 958	02 30 42.76	-02 56 20.4	12.90	5.0	SBc	SB(rs)c:	5738	55.7	0.130	
156	NGC 986	02 33 34.29	-39 02 42.1	11.70	2.1	Sab	SB(rs)ab	1984	17.2	0.082	
157	NGC 988	02 35 27.69	-09 21 21.9	11.42	5.8	Sc	SB(s)cd:	1504	17.2	0.116	
158	NGC 1022	02 38 32.70	-06 40 38.6	12.32	1.1	SBa	(R')SB(s)a	1456	18.5	0.110	
159	NGC 1042	02 40 23.95	-08 26 00.5	12.11	6.1	SABc	SAB(rs)cd	1374	10.5	0.124	
160	NGC 1052	02 41 04.79	-08 15 20.7	11.63	-4.8	E	E4	1493	19.6	0.114	
161	NGC 1068	02 42 40.65	-00 00 47.6	9.46	3.0	Sb	(R)SA(rs)b	1137	12.3	0.145	
162	NGC 1079	02 43 44.29	-29 00 11.6	12.63	0.5	SABa	(R)SAB(rs)0/a pec	1451	26.1	0.098	
163	NGC 1084	02 45 59.85	-07 34 42.2	11.61	5.1	Sc	SA(s)c	1406	21.2	0.115	
164	NGC 1087	02 46 25.23	-00 29 57.1	11.65	5.1	SABc	SAB(rs)c	1516	17.5	0.149	
165	NGC 1090	02 46 33.88	-00 14 49.8	12.53	3.8	Sbc	SB(rs)bc	2757	32.4	0.141	
166	NGC 1097	02 46 18.97	-30 16 29.0	10.16	3.1	SBb	SB(s)b	1273	16.8	0.115	
167	NGC 1172	03 01 36.01	-14 50 11.4	12.87	-3.9	E	cD:	1624	24.3	0.275	
168	NGC 1179	03 02 38.46	-18 53 52.7	12.83	5.9	Sc	SAB(r)cd	1778	18.2	0.104	
169	NGC 1187	03 02 37.52	-22 52 01.7	11.39	5.1	Sc	SB(r)c	1394	18.0	0.093	
170	NGC 1199	03 03 38.37	-15 36 48.4	12.46	-4.9	E	E3:	4192	31.9	0.233	
171	NGC 1201	03 04 07.97	-26 04 10.5	12.06	-2.5	E/SO	SA(r)0 ⁰ :	1694	20.2	0.069	
172	NGC 1209	03 06 02.97	-15 36 39.9	12.44	-4.6	E	E6:	2621	31.9	0.163	
173	NGC 1232	03 09 45.51	-20 34 45.5	10.65	5.2	SABc	SAB(rs)c	1682	18.7	0.114	NED
174	NGC 1249	03 10 01.24	-53 20 09.5	12.78	5.9	SBc	SB(s)cd	1072	16.1	0.072	
175	NGC 1253	03 14 09.06	-02 49 20.9	12.65	5.7	SABc	SAB(rs)cd	1710	22.7	0.388	
176	NGC 1255	03 13 31.94	-25 43 30.2	11.62	4.5	SABb	SAB(rs)bc	1689	21.9	0.060	
177	NGC 1291	03 17 18.54	-41 06 28.4	9.60	0.1	S0/a	(R)SB(s)0/a	838	8.6	0.056	
178	NGC 1292	03 18 14.82	-27 36 37.5	12.79	5.2	Sc	SA(s)c	1368	20.5	0.074	
179	NGC 1300	03 19 40.98	-19 24 40.3	11.22	3.7	Sbc	SB(rs)bc	1577	19.1	0.130	
180	NGC 1302	03 19 51.16	-26 03 37.6	11.97	0.0	S0/a	(R)SB(r)0/a	1706	20	0.091	
181	NGC 1309	03 22 06.52	-15 23 59.8	12.08	3.9	Sbc	SA(s)bc:	2136	26	0.172	
182	NGC 1313	03 18 16.05	-66 29 53.7	9.66	6.9	SBcd	SB(s)d	461	4.0	0.471	NED
183	NGC 1316	03 22 41.63	-37 12 28.5	9.78	-1.9	S0	SAB(s)0 ⁰ pec	1781	19.2	0.090	
184	NGC 1317	03 22 44.23	-37 06 13.2	11.92	0.7	SABa	SAB(r)a	1918	16.9	0.090	
185	NGC 1325	03 24 25.53	-21 32 38.5	12.26	4.2	SBbc	SA(s)bc	1590	21.4	0.094	
186	NGC 1326	03 23 56.29	-36 27 51.9	11.53	-0.8	S0/a	(R)SB(r)0 ⁺	1362	16.9	0.081	
187	NGC 1332	03 26 17.19	-21 20 06.6	11.39	-3.1	E/SO	S0(s) ⁻ : sp	1526	18.9	0.141	
188	NGC 1337	03 28 05.87	-08 23 18.4	12.53	6.0	SBc	SA(s)cd	1239	15.1	0.291	
189	NGC 1339	03 28 06.53	-32 17 09.6	12.80	-4.2	E	cD pec?	1356	20.8	0.057	
190	NGC 1340	03 28 19.59	-31 04 05.1	11.23	-4.6	E	E5	1187	18.2	0.077	
191	NGC 1350	03 31 08.04	-33 37 41.8	11.22	1.9	Sab	(R')SB(r)ab	1901	20.9	0.053	
192	NGC 1351	03 30 34.91	-34 51 14.1	12.43	-3.2	E/SO	SA0 ⁻ pec:	1540	20.4	0.061	
193	NGC 1353	03 32 02.96	-20 49 08.1	12.41	3.1	Sb	SB(rs)b:	1526	24.4	0.140	
194	NGC 1357	03 33 17.02	-13 39 50.9	12.44	2.1	Sab	SA(s)ab	2019	24.7	0.187	
195	NGC 1365	03 33 36.37	-36 08 25.5	10.32	3.2	Sb	SB(s)b	1655	18.1	0.088	NED
196	NGC 1367	03 35 01.33	-24 55 59.5	11.56	0.9	Sa	SAB(rs)a	1468	22.3	0.105	
197	NGC 1374	03 35 16.57	-35 13 34.6	12.03	-4.8	E	E	1331	19.4	0.060	
198	NGC 1379	03 36 03.96	-35 26 28.6	11.94	-4.9	E	E	1365	18.1	0.052	
199	NGC 1380	03 36 27.58	-34 58 33.8	11.05	-2.1	S0	SA0	1849	18.0	0.075	
200	NGC 1381	03 36 31.63	-35 17 42.8	12.66	-2.0	S0	SA0: sp	1774	17.2	0.058	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
201	NGC 1385	03 37 28.28	-24 30 04.5	11.52	5.7	Sc	SB(s)cd	1495	15.4	0.087	
202	NGC 1386	03 36 46.15	-35 59 57.3	12.17	-0.8	S0/a	SB(s)0 ⁺	841	16.2	0.053	
203	NGC 1387	03 36 56.98	-35 30 23.8	11.76	-2.9	E/SO	SAB(s)0 ⁻	1299	18.0	0.055	
204	NGC 1389	03 37 11.73	-35 44 45.9	12.55	-2.9	E/SO	SAB(s)0 ⁻ :	990	17.3	0.046	
205	NGC 1395	03 38 29.67	-23 01 38.5	10.68	-5.0	E	E2	1711	21.9	0.100	
206	NGC 1398	03 38 52.01	-26 20 15.6	10.53	1.9	SBab	(R')SB(r)ab	1406	20.5	0.058	
207	NGC 1399	03 38 28.99	-35 27 01.8	10.33	-4.9	E	E1 pec	1446	18.9	0.056	
208	NGC 1400	03 39 30.79	-18 41 17.3	12.29	-3.2	E/SO	SA0 ⁻	546	23.6	0.279	
209	NGC 1404	03 38 51.89	-35 35 39.3	10.90	-5.0	E	E1	1942	18.6	0.049	
210	NGC 1407	03 40 11.80	-18 34 48.4	10.91	-4.9	E	E0	1783	23.8	0.297	
211	NGC 1411	03 38 44.84	-44 06 02.1	12.19	-2.9	E/SO	SA(r)0 ⁻ :	6772	15.5	0.042	
212	NGC 1415	03 40 56.81	-22 33 52.1	12.78	0.5	S0/a	(R)SAB(s)0/a	1572	17.7	0.104	
213	NGC 1417	03 41 57.38	-04 42 17.5	12.83	3.1	SABb	SAB(rs)b	4123	53.2	0.242	
214	NGC 1421	03 42 29.28	-13 29 17.1	12.38	4.1	Sbc	SAB(rs)bc:	2094	25.8	0.294	
215	NGC 1425	03 42 11.45	-29 53 35.9	11.44	3.2	Sb	SA(s)b	1510	20.9	0.055	
216	NGC 1426	03 42 49.04	-22 06 30.2	12.71	-4.8	E	E4	1420	22.4	0.072	
217	NGC 1427	03 42 19.43	-35 23 33.3	11.84	-4.1	E	cD	1442	20.9	0.048	
218	NGC 1433	03 42 01.48	-47 13 18.8	10.76	2.0	SBab	(R')SB(r)ab	1074	9.9	0.039	
219	NGC 1436	03 43 37.04	-35 51 11.2	12.86	3.3	Sb	(R')SAB(rs)ab	1390	19.1	0.046	
220	NGC 1439	03 44 49.88	-21 55 14.3	12.38	-5.0	E	E1	1702	24.3	0.128	
221	NGC 1448	03 44 31.95	-44 38 42.1	11.45	5.8	Sc	SAcd: sp	1167	17.7	0.061	
222	NGC 1452	03 45 22.29	-18 38 01.3	12.90	0.2	S0/a	(R')SB(r)0/a	1740	22.8	0.419	
223	NGC 1453	03 46 27.19	-03 58 07.8	12.68	-5.0	E	E2-3	3928	51.7	0.452	
224	NGC 1461	03 48 27.10	-16 23 34.3	12.85	-1.9	S0	SA(r)0 ⁰	1439	17.1	0.211	
225	NGC 1487	03 55 44.79	-42 22 05.4	12.33	6.7	Scd	pec	849	8.9	0.051	
226	NGC 1493	03 57 27.39	-46 12 38.4	11.72	6.0	SBc	SB(r)cd	1053	11.3	0.044	
227	NGC 1494	03 57 42.26	-48 54 30.1	12.10	7.0	Scd	SAB(s)d:	1126	15.4	0.026	
228	NGC 1507	04 04 27.16	-02 11 20.3	12.86	8.3	SBd	SB(s)m pec?	857	11.4	0.709	
229	NGC 1511	03 59 37.45	-67 38 04.8	11.86	1.4	Sa	SAa pec:	1342	16.5	0.265	
230	NGC 1512	04 03 54.13	-43 20 55.5	11.04	1.0	Sa	SB(r)a	900	12.3	0.046	
231	NGC 1515	04 04 02.53	-54 05 59.9	11.92	4.0	SABb	SAB(s)bc	1171	16.9	0.060	
232	NGC 1518	04 06 49.21	-21 10 34.1	12.26	7.7	SBd	SB(s)dm	924	9.6	0.207	
233	NGC 1521	04 08 18.88	-21 03 07.3	12.71	-4.9	E	E3:	4191	56.7	0.175	
234	NGC 1527	04 08 24.05	-47 53 49.1	11.67	-2.9	E/SO	SAB(r)0 ⁻	1089	16.7	0.054	
235	NGC 1531	04 12 04.35	-32 52 26.9	12.90	-2.6	E/SO	S0 ⁻ pec:	1165	13	0.066	
236	NGC 1532	04 12 04.33	-32 52 27.2	10.68	3.0	SBb	SB(s)b pec spin	1186	17.1	0.066	NED
237	NGC 1533	04 09 51.79	-56 07 06.3	11.82	-2.6	E/SO	SB0 ⁻	790	18.4	0.066	
238	NGC 1537	04 13 40.63	-31 38 42.7	11.64	-3.4	E/SO	SAB0 ⁻ pec?	1361	18.8	0.107	
239	NGC 1543	04 12 43.11	-57 44 16.4	11.53	-1.9	S0	(R)SB(s)0 ⁰	1248	17.5	0.117	
240	NGC 1546	04 14 36.34	-56 03 38.8	12.28	-0.6	S0/a	SA0 ⁺ ?	1226	13.4	0.063	
241	NGC 1549	04 15 45.06	-55 35 32.0	10.69	-4.8	E	E0-1	1201	16.4	0.055	
242	NGC 1553	04 16 10.45	-55 46 47.9	10.30	-2.0	S0	SA(r)0 ⁰	1082	14.6	0.057	
243	NGC 1559	04 17 35.75	-62 47 01.6	11.03	5.9	SBc	SB(s)cd	1294	15.5	0.129	
244	NGC 1566	04 20 00.39	-54 56 16.4	10.30	4.1	SABb	SAB(s)bc	1498	11.8	0.039	
245	NGC 1574	04 21 58.68	-56 58 28.3	11.36	-2.9	E/SO	SA(s)0 ⁻ :	1031	18.6	0.071	
246	NGC 1596	04 27 38.08	-55 01 39.8	12.01	-2.0	S0	SA0: sp	1510	15.6	0.041	
247	NGC 1600	04 31 39.82	-05 05 10.5	12.04	-4.8	E	E3	4732	49.6	0.191	
248	NGC 1617	04 31 39.35	-54 36 07.7	11.26	0.9	SBa	SB(s)a	1066	13.4	0.032	
249	NGC 1637	04 41 28.14	-02 51 28.5	11.63	5.0	Sc	SAB(rs)c	716	11.0	0.174	
250	NGC 1640	04 42 14.49	-20 26 05.4	12.38	2.9	Sb	SB(r)b	1602	19.1	0.149	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
251	NGC 1667	04 48 37.14	−06 19 11.9	12.77	5.1	SABc	SAB(r)c	4549	61.8r	0.328	
252	NGC 1672	04 45 42.42	−59 14 50.6	10.33	3.2	Sb	SB(s)b	1347	14.5	0.101	
253	NGC 1679	04 49 55.03	−31 57 56.1	12.16	9.8	IB	SB(s)m	1056	12.7	0.095	
254	NGC 1688	04 48 23.76	−59 48 01.3	12.20	6.6	SBcd	SB(rs)d	1229	13.4	0.149	
255	NGC 1700	04 56 56.26	−04 51 56.7	12.12	−4.5	E	E4	3914	39.9	0.184	
256	NGC 1703	04 52 52.07	−59 44 32.2	12.06	3.3	SBb	SB(r)b	1526	17.4	0.145	
257	NGC 1705	04 54 13.45	−53 21 39.6	12.77	−3.0	E/SO	SA0 [−] pec:	628	5.4	0.035	
258	NGC 1723	04 59 25.86	−10 58 50.6	12.57	1.1	Sa	SB(r)a pec	3742	32.8	0.463	
259	NGC 1726	04 59 41.85	−07 45 18.8	12.70	−2.4	S0	SA(s)0 [−] :	4014	36.9	0.298	
260	NGC 1744	04 59 57.70	−26 01 20.1	11.71	6.5	SBc	SB(s)d	745	11.0	0.177	
261	NGC 1784	05 05 27.07	−11 52 16.8	12.38	5.0	Sc	SB(r)c	2316	30.0	0.572	
262	NGC 1792	05 05 14.42	−37 58 50.1	10.82	4.0	Sbc	SA(rs)bc	1218	13.5	0.097	
263	NGC 1796	05 02 42.42	−61 08 24.1	12.88	5.0	SBc	SB(rs)c pec:	989	10.6	0.105	
264	NGC 1808	05 07 42.28	−37 30 45.6	10.76	1.1	Sa	(R)SAB(s)a	1002	11.6	0.131	
265	NGC 1832	05 12 03.32	−15 41 15.9	12.12	4.1	Sbc	SB(r)bc	1942	26.2	0.315	
266	NGC 1888	05 22 34.40	−11 29 58.9	12.80	5.1	SBc	SB(s)c pec	2443	34.8	0.657	
267	NGC 1892	05 17 09.05	−64 57 35.1	12.83	5.8	Sc	Scd:	1359	16.6	0.324	
268	NGC 1947	05 26 47.40	−63 45 36.8	11.68	−2.8	E/SO	S0 [−] pec	1140	12.1	0.229	
269	NGC 1954	05 32 48.30	−14 03 45.5	12.86	4.1	Sbc	SA(rs)bc pec:	3129	39.3	0.637	
270	NGC 1964	05 33 21.57	−21 56 45.6	11.54	3.1	SABb	SAB(s)b	1663	21.8	0.149	
271	NGC 2082	05 41 51.07	−64 18 04.4	12.73	3.2	SBb	SB(r)b	1234	17.4	0.250	
272	NGC 2090	05 47 01.85	−34 15 01.7	11.66	4.2	Sbc	SA(rs)c	927	12.8	0.171	
273	NGC 2139	06 01 07.94	−23 40 20.8	11.98	5.8	Sc	SAB(rs)cd	1838	27.4	0.145	
274	NGC 2188	06 10 10.07	−34 06 14.4	12.04	8.6	SBm	SB(s)m spin	748	7.9	0.140	
275	NGC 2196	06 12 09.63	−21 48 21.7	12.00	1.1	Sa	(R')SA(s)a	2319	28.8	0.354	
276	NGC 2207	06 16 22.00	−21 22 22.1	12.11	4.2	SABb	SAB(rs)bc pec	2747	24.9	0.374	
277	NGC 2217	06 21 39.72	−27 14 01.7	11.57	−0.8	S0/a	(R)SB(rs)0 ⁺	1618	19.5	0.187	
278	NGC 2223	06 24 35.89	−22 50 17.9	12.52	3.1	Sb	SAB(r)b	2721	33.7	0.274	
279	NGC 2272	06 42 41.24	−27 27 34.3	12.88	−2.9	E/SO	SAB(s)0 [−]	2153	31.2r	0.431	
280	NGC 2280	06 44 49.03	−27 38 18.6	11.03	5.7	Sc	SA(s)cd	1904	24.0	0.439	
281	NGC 2292	06 47 39.64	−26 44 46.5	11.98	−2.1	S0	SAB0 ⁰ pec	2317	29.4	0.514	
282	NGC 2293	06 47 42.80	−26 45 15.5	12.26	−1.1	S0/a	SAB(s)0 [−] pec	2038	28.9	0.517	
283	NGC 2305	06 48 37.25	−64 16 23.9	12.76	−4.8	E	E2? pec	3499	35.3	0.327	
284	NGC 2310	06 53 53.95	−40 51 45.8	12.57	−1.8	S0	S0 spin	1187	13.6	0.459	
285	NGC 2325	07 02 40.37	−28 41 50.3	12.37	−5.0	E	E4	2148	22.6	0.507	
286	NGC 2380	07 23 54.61	−27 31 43.8	12.31	−2.4	S0	SAB0 ⁰ :	1774	22.2	1.316	
287	NGC 2397	07 21 19.92	−69 00 05.7	12.85	3.1	SBb	SB(s)b:	1354	22.7	0.884	
288	NGC 2417	07 30 12.08	−62 15 09.5	12.90	4.1	Sbc	SA(rs)bc	3192	43.7	0.803	
289	NGC 2427	07 36 28.57	−47 38 13.3	12.30	7.6	SABd	SAB(s)dm	971	12.0	0.926	
290	NGC 2434	07 34 51.14	−69 17 03.5	12.37	−4.8	E	E0−1	1412	21.9	1.069	
291	NGC 2442	07 36 23.82	−69 31 51.3	11.34	4.0	Sbc	SAB(s)bc pec	1449	17.1	0.874	
292	NGC 2525	08 05 38.02	−11 25 37.5	12.23	5.1	Sc	SB(s)c	1582	18.5	0.251	
293	NGC 2559	08 17 06.08	−27 27 20.0	11.71	4.6	SBc	SB(s)bc pec:	1559	18.3	0.944	
294	NGC 2566	08 18 45.56	−25 29 58.2	11.86	2.9	Sb	(R')SB(rs)ab pec:	1638	21.1	0.621	
295	NGC 2613	08 33 22.76	−22 58 24.9	11.15	3.2	Sb	SA(s)b	1678	25.9	0.383	
296	NGC 2640	08 37 24.52	−55 07 25.0	12.13	−3.0	E/SO	SAB0 [−]	1051	17.2r	1.289	
297	NGC 2663	08 45 08.14	−33 47 40.9	12.01	−4.8	E	E	2127	27.5	1.577	
298	NGC 2695	08 54 27.04	−03 04 00.9	12.89	−2.2	S0	SAB(s)0 ⁰ ?	1833	35.0	0.077	
299	NGC 2698	08 55 36.47	−03 11 02.4	12.88	−1.2	S0/a	SA0 ⁺ ?	1858	29.7r	0.082	
300	NGC 2708	08 56 08.05	−03 21 36.6	12.79	3.0	SABb	SAB(s)b pec?	2006	38.0	0.070	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
301	NGC 2763	09 06 49.03	-15 29 59.7	12.61	5.5	SBc	SB(r)cd pec	1891	28.6	0.314	
302	NGC 2781	09 11 27.49	-14 49 00.4	12.48	-1.1	S0/a	SAB(r)0 ⁺	2033	27.5	0.263	
303	NGC 2784	09 12 19.40	-24 10 21.4	11.19	-2.1	S0	SA(s)0 ⁰ :	704	8.5	0.925	
304	NGC 2811	09 16 11.08	-16 18 45.9	12.24	1.0	SBa	SB(rs)a	2371	33.7	0.233	
305	NGC 2815	09 16 19.74	-23 37 59.9	12.74	2.8	SBb	SB(r)b:	2538	37.4	0.548	
306	NGC 2822	09 13 50.48	-69 38 42.8	11.69	-4.9	E	E?	1580	24.7r	0.409	
307	NGC 2835	09 17 52.82	-22 21 17.2	11.04	5.1	Sc	SB(rs)c	887	10.2	0.435	
308	NGC 2848	09 20 09.87	-16 31 32.9	12.38	4.9	SABc	SAB(s)c:	2046	27.7	0.258	
309	NGC 2855	09 21 27.47	-11 54 34.3	12.47	-0.2	S0/a	(R)SA(rs)0/a	1907	26.3	0.203	
310	NGC 2865	09 23 30.19	-23 09 40.8	12.45	-4.9	E	E3-4	2765	31.2	0.355	
311	NGC 2889	09 27 12.58	-11 38 36.6	12.46	4.8	SABc	SAB(rs)c	3366	50.3r	0.166	
312	NGC 2907	09 31 36.58	-16 44 05.0	12.62	0.8	Sa	SA(s)a ₁ spin	2089	28.2	0.259	
313	NGC 2935	09 36 44.82	-21 07 41.7	12.18	3.2	Sb	(R')SAB(s)b	2275	30.2	0.275	
314	NGC 2947	09 36 05.82	-12 26 11.8	12.88	3.8	SABb	SAB(r)bc	2814	43.1r	0.173	
315	NGC 2974	09 42 33.27	-03 41 57.0	11.91	-4.9	E	E4	1895	25.3	0.235	
316	NGC 2983	09 43 41.09	-20 28 38.4	12.83	-0.8	S0/a	SB(rs)0 ⁺	2039	27.4	0.262	
317	NGC 2986	09 44 16.02	-21 16 41.1	11.69	-4.8	E	E2	2316	35.3	0.255	
318	NGC 2997	09 45 38.79	-31 11 27.9	10.06	5.3	SABc	SAB(rs)c	1087	10.3	0.469	NED
319	NGC 3001	09 46 18.65	-30 26 14.9	12.57	4.1	Sbc	SAB(rs)bc	2475	39.8	0.503	
320	NGC 3038	09 51 15.47	-32 45 09.1	12.43	3.1	Sb	SA(rs)b	2787	37.5	0.558	
321	NGC 3052	09 54 27.92	-18 38 20.1	12.80	5.1	SABc	SAB(r)c:	3772	49.8	0.199	
322	NGC 3054	09 54 28.58	-25 42 12.1	12.38	3.1	Sb	SAB(r)b	2430	34.8	0.320	
323	NGC 3056	09 54 32.86	-28 17 53.6	12.57	-1.2	S0/a	(R)SA(s)0 ⁻ :	1032	12.3	0.385	
324	NGC 3059	09 50 08.43	-73 55 18.6	11.72	4.2	SBbc	SB(rs)bc	1260	14.8	1.052	
325	NGC 3078	09 58 24.58	-26 55 35.8	12.11	-5.0	E	E2-3	2504	34.5	0.306	
326	NGC 3087	09 59 08.67	-34 13 30.9	12.49	-4.2	E	cD:	2595	38.2	0.457	
327	NGC 3091	10 00 14.13	-19 38 11.0	12.13	-4.9	E	E3:	3809	48.4	0.187	
328	NGC 3095	10 00 05.84	-31 33 10.4	12.37	5.1	Sc	SAB(rs)c	2722	34.5	0.299	
329	NGC 3100	10 00 40.81	-31 39 52.1	11.97	-2.2	S0	SAB(s)0 ⁰ pec	2502	40.6r	0.313	
330	NGC 3108	10 02 29.01	-31 40 38.6	12.76	-1.3	S0/a	SA(s)0 ⁺	2600	38.6	0.336	
331	NGC 3109	10 03 10.69	-26 09 27.9	10.35	9.1	SBm	SB(s)m spin	404	1.3	0.288	
332	NGC 3115	10 05 13.91	-07 43 06.8	10.10	-2.7	E/SO	S0 ⁻ spin	659	10.1	0.205	
333	NGC 3124	10 06 39.88	-19 13 17.6	12.76	4.0	Sbc	SAB(rs)bc	3561	38.7	0.236	
334	NGC 3136	10 05 48.05	-67 22 40.6	11.83	-5.0	E	E:	1707	23.9	1.025	
335	NGC 3137	10 09 07.42	-29 03 50.8	12.27	6.0	SABc	SA(s)cd	1106	15.1	0.299	
336	NGC 3145	10 10 09.86	-12 26 01.7	12.61	4.0	SBbc	SB(rs)bc	3656	53.5	0.278	
337	NGC 3175	10 14 42.32	-28 52 19.8	12.29	1.6	Sab	SAB(s)a?	1103	17.6	0.319	
338	NGC 3200	10 18 36.50	-17 58 57.1	12.74	4.6	Sc	SAB(rs)c:	3514	53.9	0.303	
339	NGC 3223	10 21 35.07	-34 16 00.6	11.80	3.3	Sb	SA(s)b	2896	33.9	0.466	
340	NGC 3250	10 26 32.28	-39 56 38.6	12.16	-5.0	E	E4	2817	40.0	0.444	
341	NGC 3256	10 27 51.20	-43 54 14.0	12.08	4.0	Sbc	pec	2789	37.4	0.524	
342	NGC 3258	10 28 53.51	-35 36 19.6	12.51	-4.9	E	E1	2775	40.9	0.363	
343	NGC 3261	10 29 01.47	-44 39 24.9	12.29	3.3	Sb	SB(rs)b	2556	33.4	0.559	
344	NGC 3263	10 29 13.38	-44 07 22.2	12.44	5.5	SBc	SB(rs)cd: spin	3013	39.1	0.513	
345	NGC 3268	10 30 00.66	-35 19 31.4	12.42	-4.9	E	E2	2776	40.5	0.444	
346	NGC 3271	10 30 26.49	-35 21 34.1	12.82	-1.7	S0	SB(r)0 ⁰	3796	56.5r	0.466	
347	NGC 3275	10 30 51.75	-36 44 13.0	12.51	1.8	Sab	SB(r)ab	3218	42.4	0.286	
348	NGC 3281	10 31 52.06	-34 51 13.1	12.63	1.9	Sab	SA(s)ab pec:	3440	48.3r	0.415	
349	NGC 3283	10 31 11.60	-46 15 05.0	12.56	-2.0	S0	SA(s)0 ⁰ ?	2889	43.6r	0.784	ESO 263-G048
350	NGC 3309	10 36 35.65	-27 31 06.4	12.48	-5.0	E	E3	4082	52.9	0.343	NED

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
351	NGC 3311	10 36 42.82	-27 31 42.0	12.28	-3.7	E	cD2	3775	47.3	0.343	NED
352	NGC 3312	10 37 02.53	-27 33 54.1	12.77	2.9	Sb	SA(s)b pec?	2862	48.6	0.340	NED
353	NGC 3313	10 37 25.45	-25 19 09.6	12.53	2.0	Sab	(R')SB(rs)ab	3706	55.5r	0.232	
354	NGC 3318	10 37 15.49	-41 37 39.0	12.34	3.6	Sbc	SAB(rs)b	2776	39.0	0.336	
355	NGC 3347	10 42 46.61	-36 21 11.6	12.15	3.2	SBb	SB(rs)b	3004	32.4	0.253	
356	NGC 3358	10 43 33.02	-36 24 38.6	12.27	0.1	S0/a	(R)SAB(s)0/a	2973	38.3	0.236	
357	NGC 3366	10 35 08.27	-43 41 30.6	12.21	3.2	SBb	(R')SB(r)b:	2886	41.8	0.576	
358	NGC 3390	10 48 04.35	-31 32 00.4	12.85	2.8	Sb	Sb spin	2835	38	0.337	
359	NGC 3450	10 48 03.63	-20 50 57.0	12.54	2.9	Sb	SB(r)b	4025	60.1r	0.238	
360	NGC 3511	11 03 23.87	-23 05 09.3	11.53	5.2	SABc	SA(s)c	1105	14.1	0.294	
361	NGC 3513	11 03 46.04	-23 14 43.7	12.04	5.1	SBc	SB(rs)c	1194	12.4	0.274	
362	NGC 3521	11 05 48.54	-00 02 09.1	9.73	3.6	SABb	SAB(rs)bc	807	12.2	0.250	
363	NGC 3557	11 09 57.62	-37 32 21.0	11.40	-5.0	E	E3	3029	36.0	0.426	
364	NGC 3568	11 10 48.58	-37 26 53.1	12.84	5.1	Sc	SB(s)c:	2437	27.3	0.470	
365	NGC 3585	11 13 17.09	-26 45 17.2	10.83	-4.9	E	E6	1409	17.6	0.276	
366	NGC 3621	11 18 16.54	-32 48 50.6	10.10	6.8	SBcd	SA(s)d	727	6.8	0.346	
367	NGC 3660	11 23 32.26	-08 39 30.6	12.76	3.9	Sbc	SB(r)bc	3678	55.5r	0.177	
368	NGC 3672	11 25 02.44	-09 47 43.0	12.12	4.9	Sc	SA(s)c	1862	25.3	0.177	
369	NGC 3673	11 25 12.86	-26 44 11.9	12.62	3.1	Sb	SB(rs)b	1941	23.3	0.242	
370	NGC 3706	11 29 44.42	-36 23 28.7	12.33	-3.1	E/SO	SA(rs)0 ⁻	2989	37.4	0.398	
371	NGC 3717	11 31 31.97	-30 18 27.9	12.22	3.0	Sb	SAb: spin	1734	18.5	0.283	
372	NGC 3763	11 36 30.17	-09 50 48.2	12.50	4.9	SABc	SAB(rs)c pec	5875	85.5r	0.130	
373	NGC 3783	11 39 01.73	-37 44 18.9	12.45	1.8	SBab	(R')SB(r)ab	2917	38.5	0.514	
374	NGC 3882	11 46 06.46	-56 23 28.0	12.80	4.1	SBbc	SB(s)bc	1826	23.5	1.671	
375	NGC 3885	11 46 46.45	-27 55 19.9	12.82	0.3	S0/a	SA(s)0/a	1952	27.8	0.316	
376	NGC 3887	11 47 04.59	-16 51 16.6	11.42	4.0	Sbc	SB(r)bc	1209	18.8	0.148	
377	NGC 3892	11 48 01.04	-10 57 43.5	12.86	-1.0	S0/a	SB(rs)0 ⁺	1742	27.2	0.119	
378	NGC 3904	11 49 13.22	-29 16 36.5	11.94	-5.0	E	E2-3:	1501	24.7	0.310	
379	NGC 3923	11 51 01.73	-28 48 21.5	10.76	-4.8	E	E4-5	1745	20.9	0.357	
380	NGC 3936	11 52 20.57	-26 54 21.4	12.83	4.3	SBbc	SB(s)bc: spin	2022	22.7	0.349	
381	NGC 3955	11 53 57.16	-23 09 51.5	12.62	0.3	S0/a	S0/a pec	1495	20.6	0.234	
382	NGC 3956	11 54 00.69	-20 34 02.3	12.84	5.1	SBc	SA(s)c:	1652	25.8	0.175	
383	NGC 3962	11 54 40.06	-13 58 29.9	11.75	-4.9	E	E1	1841	30.4	0.201	
384	NGC 3981	11 56 07.41	-19 53 45.2	12.55	4.0	Sbc	SA(rs)bc	1718	23.0	0.173	
385	NGC 4024	11 58 31.22	-18 20 48.4	12.84	-3.0	E/SO	SAB0 ⁻	1668	25.4	0.181	
386	NGC 4027	11 59 30.14	-19 15 55.5	11.71	7.4	SBcd	SB(s)dm	1671	25.6	0.181	
387	NGC 4030	12 00 23.61	-01 06 00.0	11.67	4.1	Sbc	SA(s)bc	1462	24.5	0.114	
388	NGC 4033	12 00 34.71	-17 50 33.5	12.89	-4.7	E	E6	1589	21.7	0.204	
389	NGC 4038	12 01 53.01	-18 52 03.4	10.93	8.8	SBm	SB(s)m pec	1634	27.4r	0.200	NED
390	NGC 4039	12 01 53.51	-18 53 10.3	11.19	9.0	SBm	SA(s)m pec	1619	27.3r	0.200	NED
391	NGC 4050	12 02 53.91	-16 22 24.9	12.84	2.0	Sab	SB(r)ab	1765	32.5	0.245	
392	NGC 4094	12 05 53.93	-14 31 35.3	12.51	5.8	Sc	SAB(rs)cd:	1437	19.9	0.244	
393	NGC 4105	12 06 42.32	-29 45 51.5	11.57	-4.7	E	E3	1864	27.3	0.263	
394	NGC 4106	12 06 44.80	-29 46 05.9	12.29	-1.4	S0/a	SB(s)0 ⁺	2158	26.2	0.261	NED
395	NGC 4112	12 07 09.47	-40 12 29.5	12.98	3.3	Sb	SAB(rs)b pec	2714	41.3r	0.416	extra
396	NGC 4219	12 16 27.33	-43 19 27.5	12.69	3.9	Sbc	SA(s)bc	1985	23.7	0.568	
397	NGC 4304	12 22 12.73	-33 29 04.5	12.51	4.0	Sbc	(R')SB(s)bc pec:	2630	36	0.297	
398	NGC 4373	12 25 13.61	-39 46 05.5	11.83	-3.1	E/SO	SAB(rs)0 ⁻ :	3380	34.0	0.345	
399	NGC 4373A	12 25 37.69	-39 19 10.5	12.75	-1.9	S0	SA0 ⁺ : spin	2990	27.8	0.363	
400	NGC 4462	12 29 21.13	-23 09 59.8	12.79	2.0	SBab	SB(r)ab	1795	27.7	0.432	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
401	NGC 4487	12 31 04.47	−08 03 14.6	12.21	5.9	Sc	SAB(rs)cd	1037	19.9	0.092	
402	NGC 4504	12 32 17.41	−07 33 48.9	12.45	6.1	SABc	SA(s)cd	996	18.6	0.108	
403	NGC 4546	12 35 29.47	−03 47 35.2	11.57	−2.8	E/SO	SB(s)0 [−]	1050	17.3	0.146	
404	NGC 4592	12 39 18.69	−00 31 53.6	12.90	7.6	Sd	SA(s)dm:	1072	11.9	0.097	
405	NGC 4593	12 39 39.41	−05 20 38.9	12.89	3.0	Sb	(R)SB(rs)b	2492	44.0	0.106	
406	NGC 4594	12 39 59.39	−11 37 22.9	9.08	1.0	Sa	SA(s)a spin	1091	10.5	0.221	
407	NGC 4602	12 40 36.89	−05 07 57.9	12.86	4.3	SABb	SAB(rs)bc	2542	34.9	0.104	
408	NGC 4603	12 40 55.19	−40 58 34.9	12.46	5.0	SABc	SA(s)c?	2592	36.8	0.724	
409	NGC 4632	12 42 31.99	−00 04 57.3	12.63	5.1	Sc	SAC	1717	17.6	0.104	
410	NGC 4650	12 44 19.60	−40 43 54.2	12.67	0.1	S0/a	SB(s)0/a pec	2910	46.4	0.501	
411	NGC 4653	12 43 50.87	−00 33 40.2	12.73	6.1	SABc	SAB(rs)cd	2626	40.2	0.104	
412	NGC 4666	12 45 08.61	−00 27 42.9	11.80	4.8	SABc	SABc:	1517	18.2	0.107	
413	NGC 4684	12 47 17.52	−02 43 38.6	12.28	−1.2	S0/a	SB(r)0 ⁺	1573	20.5	0.118	
414	NGC 4691	12 48 13.64	−03 19 58.3	12.03	0.2	S0/a	(R)SB(s)0/a pec	1111	22.5	0.119	
415	NGC 4696	12 48 49.23	−41 18 39.3	11.86	−3.7	E	cD1 pec	2926	37.6	0.489	
416	NGC 4697	12 48 35.87	−05 48 02.4	10.42	−4.9	E	E6	1234	11.6	0.131	
417	NGC 4699	12 49 02.19	−08 39 51.7	10.56	2.9	SABb	SAB(rs)b	1429	24.7	0.149	
418	NGC 4700	12 49 08.23	−11 24 35.7	12.44	4.8	SBc	SB(s)c? spin	1406	15.6	0.203	
419	NGC 4705	12 49 24.95	−05 11 44.8	12.52	4.0	SABb	SAB(s)bc: spin	4296	49.4	0.123	
420	NGC 4709	12 50 03.91	−41 22 55.1	12.24	−4.8	E	E1	4632	36.9	0.512	
421	NGC 4727	12 50 57.19	−14 19 58.2	12.59	3.8	Sbc	SAB(r)bc pec:	7622	107.3r	0.227	
422	NGC 4731	12 51 01.16	−06 23 34.5	12.12	6.0	SBc	SB(s)cd	1494	19.8	0.139	
423	NGC 4742	12 51 48.01	−10 27 17.1	12.37	−4.8	E	E4:	7060	15.0	0.175	
424	NGC 4753	12 52 22.06	−01 11 58.3	11.12	−2.0	S0	I0	1395	19.6	0.146	
425	NGC 4760	12 53 07.23	−10 29 39.2	12.80	−4.9	E	E0?	4743	54.7	0.176	
426	NGC 4767	12 53 52.91	−39 42 51.4	12.55	−4.6	E	E	2972	36.2	0.460	
427	NGC 4775	12 53 45.65	−06 37 19.9	12.20	6.8	Scd	SA(s)d	1567	26.6	0.150	
428	NGC 4781	12 54 23.75	−10 32 13.6	11.66	6.8	Scd	SB(rs)d	1262	16.8	0.206	
429	NGC 4786	12 54 32.39	−06 51 33.7	12.81	−4.1	E	cD pec	4633	62.6	0.154	
430	NGC 4802	12 55 49.63	−12 03 18.7	12.34	−2.2	S0	SA(r)0?	1018	11.5	0.206	
431	NGC 4818	12 56 48.88	−08 31 31.0	12.06	2.1	SABa	SAB(rs)ab pec:	1065	21.5	0.143	
432	NGC 4825	12 57 12.26	−13 39 53.2	12.78	−3.1	E/SO	SA0 [−]	4442	65.5r	0.213	
433	NGC 4835	12 58 07.93	−46 15 51.2	12.64	4.0	Sbc	SAB(rs)bc:	2188	25.5	0.439	
434	NGC 4856	12 59 21.23	−15 02 31.2	11.45	−0.1	S0/a	SB(s)0/a	1347	21.1	0.232	
435	NGC 4899	13 00 56.59	−13 56 38.9	12.45	4.9	SABc	SAB(rs)c:	2658	38.4	0.218	
436	NGC 4902	13 00 59.69	−14 30 48.5	11.79	2.9	Sb	SB(r)b	2625	39.2	0.215	
437	NGC 4930	13 04 05.21	−41 24 41.1	12.07	3.2	Sb	SB(rs)b	2584	24.1	0.476	
438	NGC 4933B	13 03 56.92	−11 29 48.1	12.61	−0.2	S0/a	S0/a pec	3236	48.8r	0.248	
439	NGC 4936	13 04 17.10	−30 31 34.2	12.06	−5.0	E	E0	3225	31.1	0.357	
440	NGC 4939	13 04 14.32	−10 20 22.3	11.92	3.9	Sbc	SA(s)bc	3109	40.8	0.176	
441	NGC 4941	13 04 13.09	−05 33 05.6	12.05	2.1	SABa	(R)SAB(r)ab:	1111	13.8	0.157	
442	NGC 4945	13 05 27.09	−49 28 02.1	9.29	6.1	SBc	SB(s)cd: spin	563	3.9	0.762	
443	NGC 4947	13 05 20.19	−35 20 14.4	12.71	3.4	Sb	SAB(r)b pec	2405	31.3	0.262	
444	NGC 4951	13 05 07.72	−06 29 37.8	12.58	6.0	SABc	SAB(rs)cd:	1179	16.1	0.203	
445	NGC 4958	13 05 48.87	−08 01 12.9	11.74	−2.0	S0	SB(r)0? spin	1117	20.9	0.205	
446	NGC 4965	13 07 09.36	−28 13 41.7	12.59	6.9	SABc	SAB(s)d	2265	32.2	0.328	
447	NGC 4976	13 08 37.55	−49 30 21.9	10.96	−4.6	E	E4 pec:	1412	12.5	0.790	
448	NGC 4981	13 08 48.69	−06 46 38.9	12.33	4.2	Sbc	SAB(r)bc	1681	24.1	0.182	
449	NGC 4984	13 08 57.22	−15 30 58.5	12.24	−0.7	S0/a	(R)SAB(rs)0 ⁺	1207	21.3	0.267	
450	NGC 4995	13 09 40.61	−07 49 59.9	12.01	3.0	SABb	SAB(rs)b	1768	27.2	0.188	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
451	NGC 5011	13 12 51.85	-43 05 46.4	12.39	-4.8	E	E1-2	3074	40.6	0.425	
452	NGC 5018	13 13 01.05	-19 31 05.8	11.94	-4.7	E	E3:	2849	40.2	0.412	
453	NGC 5026	13 14 13.62	-42 57 40.6	12.43	-0.1	S0/a	(R')SB(rs)0/a	3744	52.2r	0.441	
454	NGC 5042	13 15 30.99	-23 59 01.9	12.49	5.0	SABc	SAB(rs)c	1387	16.3	0.786	
455	NGC 5044	13 15 23.95	-16 23 07.6	11.80	-4.9	E	E0	2698	33.8	0.300	
456	NGC 5054	13 16 58.42	-16 38 04.4	11.85	4.0	Sbc	SA(s)bc	1741	19.2	0.356	
457	NGC 5061	13 18 05.11	-26 50 13.8	11.28	-4.9	E	E0	2041	26.0	0.295	
458	NGC 5068	13 18 54.72	-21 02 20.2	10.64	6.2	Sc	SAB(rs)cd	672	6.1	0.439	
459	NGC 5077	13 19 31.64	-12 39 24.9	12.37	-5.0	E	E3-4	2703	38.0	0.210	
460	NGC 5078	13 19 50.06	-27 24 36.5	12.17	0.7	Sa	SA(s)a: spin	2169	33.8r	0.277	
461	NGC 5084	13 20 16.81	-21 49 38.6	11.54	-1.8	S0	S0 spin	1726	26.4	0.505	
462	NGC 5087	13 20 24.95	-20 36 39.6	12.45	-3.0	E/SO	SA0:	1825	26.2	0.448	
463	NGC 5090	13 21 12.85	-43 42 16.9	12.42	-4.9	E	E2	3313	44.4	0.622	
464	NGC 5101	13 21 46.15	-27 25 49.2	11.58	0.1	S0/a	(R)SB(rs)0/a	1861	27.4	0.309	
465	NGC 5102	13 21 57.59	-36 37 48.1	10.28	-2.9	E/SO	SA0 ⁻	469	3.4	0.237	
466	NGC 5121	13 24 45.60	-37 40 55.6	12.47	0.8	Sa	(R')SA(s)a	1475	22.1	0.308	
467	NGC 5128	13 25 27.97	-43 01 05.1	7.73	-2.2	S0	S0 pec	548	3.7	0.496	Cen A
468	NGC 5134	13 25 18.52	-21 08 03.3	12.46	2.6	SABb	SA(s)b?	1756	11.0	0.390	
469	NGC 5135	13 25 44.01	-29 50 00.9	12.81	2.0	Sab	SB(s)ab	4108	60.2r	0.258	
470	NGC 5156	13 28 44.08	-48 55 00.4	12.52	4.1	SBbc	SB(r)b	2954	39.5	0.614	
471	NGC 5161	13 29 13.92	-33 10 25.5	12.01	5.0	Sc	SA(s)c:	2388	23.8	0.255	
472	NGC 5170	13 29 48.76	-17 57 59.4	12.10	4.8	Sc	SA(s)c: spin	1503	29.3	0.343	
473	NGC 5188	13 31 28.27	-34 47 39.1	12.88	3.0	Sb	(R')SAB(s)b pec:	2421	32.9	0.225	
474	NGC 5193	13 31 53.49	-33 14 03.3	12.85	-4.7	E	E pec:	3647	44.8	0.242	
475	NGC 5206	13 33 43.97	-48 09 04.0	11.99	-2.9	E/SO	(R')SB(rs)0 ⁰ pec:	570	11.0r	0.518	
476	NGC 5236	13 37 00.92	-29 51 56.5	7.91	5.1	Sc	SAB(s)c	513	4.6	0.284	
477	NGC 5247	13 38 02.99	-17 53 02.3	11.17	4.5	SABb	SA(s)bc	1357	22.2	0.383	
478	NGC 5253	13 39 56.01	-31 38 25.0	10.75	8.0	S?	pec	403	3.5	0.241	
479	NGC 5254	13 39 37.89	-11 29 37.8	12.67	5.1	Sc	SA(rs)c:	2318	32.2	0.326	
480	NGC 5264	13 41 36.39	-29 54 47.1	12.55	9.3	SBm	IB(s)m	482	4.4	0.223	
481	NGC 5266	13 43 02.12	-48 10 09.9	12.53	-3.0	E/SO	SA0 ⁻	2992	40.8	0.383	
482	NGC 5292	13 47 40.05	-30 56 21.9	12.62	1.8	Sab	(R')SA(rs)ab	4467	64.9r	0.262	
483	NGC 5324	13 52 05.90	-06 03 29.7	12.74	5.0	Sc	SA(rs)c:	3044	44	0.125	
484	NGC 5328	13 52 53.30	-28 29 21.5	12.66	-4.7	E	E1:	4736	51.9	0.269	
485	NGC 5333	13 54 24.23	-48 30 44.9	12.81	-2.0	S0	SB(r)0 ⁰ ?	2752	28.0	0.536	
486	NGC 5334	13 52 54.41	-01 06 52.5	12.76	5.0	Sc	SB(rs)c:	1382	24.7	0.198	
487	NGC 5339	13 54 00.26	-07 55 50.1	12.86	1.1	Sa	SB(rs)a pec	2734	41.4r	0.156	
488	NGC 5408	14 03 20.56	-41 22 41.8	12.21	10.0	IB	IB(s)m	507	4.9	0.298	
489	NGC 5419	14 03 38.71	-33 58 41.7	11.97	-4.3	E	E	4153	46.8	0.311	
490	NGC 5426	14 03 24.85	-06 04 08.8	12.84	5.0	Sc	SA(s)c pec	2620	35.9	0.122	NED
491	NGC 5427	14 03 26.05	-06 01 50.9	12.06	4.9	SABc	SA(s)c pec	2619	33.8	0.121	NED
492	NGC 5468	14 06 34.89	-05 27 10.7	12.73	6.0	SABc	SAB(rs)cd	2842	46.7	0.106	
493	NGC 5483	14 10 25.04	-43 19 28.4	11.90	5.0	Sc	SA(s)c	1774	24.7	0.355	
494	NGC 5506	14 13 14.86	-03 12 27.3	12.88	1.6	Sab	Sa pec spin	1815	28.7	0.257	
495	NGC 5516	14 15 54.67	-48 06 53.6	13.01	-2.9	E/SO	SA(s)0 ⁻ ?	4123	72.2	0.865	extra
496	NGC 5530	14 18 27.27	-43 23 17.4	11.86	4.2	SABb	SA(rs)bc	1196	14.3	0.502	
497	NGC 5556	14 20 34.06	-29 14 30.3	12.81	7.0	Scd	SAB(rs)d	1381	18.8	0.302	
498	NGC 5597	14 24 27.43	-16 45 45.8	12.78	5.7	Sc	SAB(s)cd	2683	38.6	0.347	
499	NGC 5643	14 32 40.71	-44 10 27.9	10.77	4.9	Sc	SAB(rs)c	1199	16.9	0.728	
500	NGC 5688	14 39 35.14	-45 01 08.4	12.59	4.8	Sc	SAB(rs)c	2798	36.5	0.655	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s ⁻¹)	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
501	NGC 5713	14 40 11.49	−00 17 20.0	12.09	4.1	SABb	SAB(rs)bc pec	1890	23.8	0.170	
502	NGC 5728	14 42 23.88	−17 15 11.0	12.48	1.2	Sa	SAB(r)a:	2788	29.1	0.438	
503	NGC 5786	14 58 56.26	−42 00 47.8	12.17	4.1	Sbc	(R')SB(s)bc	2991	26.3	0.419	
504	NGC 5791	14 58 46.19	−19 16 00.8	12.59	−4.7	E	E6:	3318	36.4	0.399	
505	NGC 5792	14 58 22.66	−01 05 27.6	12.52	3.1	Sb	SB(rs)b	1924	25.6	0.252	
506	NGC 5796	14 59 24.08	−16 37 26.0	12.85	−5.0	E	E0−1	2964	38.2	0.449	
507	NGC 5812	15 00 55.66	−07 27 26.6	12.30	−5.0	E	E0	1949	27.7	0.375	
508	NGC 5833	15 11 53.68	−72 51 33.5	12.74	4.2	Sbc	SA(s)bc pec:	3029	39.3	0.612	
509	NGC 5861	15 09 16.07	−11 19 17.9	12.47	4.9	SABc	SAB(rs)c	1855	29.2	0.466	
510	NGC 5878	15 13 45.69	−14 16 11.5	12.54	3.1	Sb	SA(s)b	1989	30.5	0.615	
511	NGC 5885	15 15 04.16	−10 05 09.5	12.27	5.1	SABc	SAB(r)c	2000	30.7	0.445	
512	NGC 5892	15 13 48.17	−15 27 49.4	13.27	7.0	SABc	SA(s)d	2285	33.7	0.428	extra
513	NGC 5898	15 18 13.58	−24 05 52.2	12.37	−4.8	E	E0	2164	29.6	0.628	
514	NGC 5903	15 18 36.51	−24 04 06.7	12.17	−4.9	E	E2	2523	31.7	0.637	
515	NGC 5915	15 21 33.03	−13 05 30.7	12.78	2.4	SBab	SB(s)ab pec	2283	33.7	0.613	
516	NGC 5938	15 36 26.18	−66 51 34.4	12.53	4.0	SBbc	SB(rs)bc	3477	27.5	0.659	
517	NGC 5967	15 48 15.89	−75 40 22.5	12.71	5.2	SABc	SAB(rs)c:	2922	37.2	0.432	
518	NGC 6118	16 21 48.58	−02 17 00.5	12.30	6.0	Sc	SA(s)cd	1572	23.1	0.679	
519	NGC 6156	16 34 52.52	−60 37 07.7	12.49	5.0	Sc	SAB(rs)c pec:	3250	45.6r	0.744	
520	NGC 6215	16 51 06.84	−58 59 35.3	11.99	5.0	Sc	SA(s)c	1559	20.5	0.712	
521	NGC 6221	16 52 46.29	−59 13 00.8	10.77	5.0	Sc	SB(s)c	1481	12.5	0.712	
522	NGC 6300	17 16 59.49	−62 49 13.7	11.01	3.2	SBb	SB(rs)b	1110	15.1	0.420	
523	NGC 6392	17 43 30.28	−69 47 06.6	12.48	1.9	SABa	(R')SAB(rs)ab:	3720	50.0r	0.299	
524	NGC 6438	18 22 17.48	−85 24 07.4	12.14	−2.0	S0	Ring	3601	29.8	0.725	NED
525	NGC 6438A	18 22 35.49	−85 24 22.8	12.73	10.0	I	Ring	2516	30.9	0.726	NED
526	NGC 6492	18 02 48.34	−66 25 49.8	12.40	3.9	Sbc	SA(rs)bc:	4331	70	0.270	
527	NGC 6673	18 45 06.33	−62 17 49.5	12.49	−3.9	E	SAB(s)0 [−] :	1140	13.6	0.463	
528	NGC 6684	18 48 57.83	−65 10 23.9	11.30	−1.9	S0	(R')SB(s)0 ⁰	862	12.4	0.290	
529	NGC 6699	18 52 02.08	−57 19 14.4	12.77	4.0	SABb	SAB(rs)bc:	3347	45.8r	0.379	
530	NGC 6744	19 09 46.11	−63 51 26.7	9.13	4.1	SABb	SAB(r)bc	840	9.5	0.185	
531	NGC 6753	19 11 23.58	−57 02 57.4	11.93	2.9	Sb	(R)SA(r)b	3126	42.6r	0.297	
532	NGC 6754	19 11 25.73	−50 38 31.6	12.89	3.3	Sb	SB(rs)b	3250	43.4	0.303	
533	NGC 6758	19 13 52.33	−56 18 35.8	12.59	−4.1	E	cD:	3406	41.2	0.280	R band
534	NGC 6769	19 18 31.96	−60 31 33.9	12.58	3.0	SABb	SAB(r)b pec	3796	49.7r	0.263	
535	NGC 6770	19 18 37.28	−60 29 47.4	12.78	3.0	Sb	SAB(rs)b pec	3827	51.9r	0.264	
536	NGC 6782	19 23 57.82	−59 55 20.7	12.73	0.7	Sa	(R)SAB(r)a	3834	52.9r	0.257	
537	NGC 6788	19 26 49.73	−54 57 04.6	12.88	2.1	Sab	SA(s)ab	3168	46.5	0.224	
538	NGC 6810	19 43 34.39	−58 39 19.9	12.29	2.1	Sab	SA(s)ab: spin	1961	29.6	0.279	
539	NGC 6814	19 42 40.56	−10 19 25.0	12.30	3.9	SABb	SAB(rs)bc	1561	22.8	0.790	
540	NGC 6822	19 44 56.52	−14 48 32.6	9.36	10.0	IB	IB(s)m	−56	0.49	1.020	
541	NGC 6851	20 03 34.32	−48 17 04.2	12.68	−4.8	E	E:	3055	33.3	0.200	
542	NGC 6861	20 07 19.42	−48 22 12.4	12.09	−3.0	E/SO	SA(s)0 ⁺ :	2806	31.8	0.234	
543	NGC 6868	20 09 53.98	−48 22 46.3	11.77	−4.8	E	E2	2844	30.6	0.237	
544	NGC 6872	20 16 56.37	−70 46 04.8	12.59	3.1	SBb	SB(s)b pec	4787	61.8r	0.201	
545	NGC 6876	20 18 19.09	−70 51 31.4	11.83	−4.9	E	E3	3893	39.9	0.194	
546	NGC 6887	20 17 17.29	−52 47 48.2	12.73	3.9	Sbc	SABc:	2701	33.5	0.206	
547	NGC 6893	20 20 49.61	−48 14 20.7	12.73	−2.0	S0	SAB(s)0 ⁰	3046	39.9r	0.173	
548	NGC 6902	20 24 28.04	−43 39 12.3	11.86	2.8	SBb	SA(r)b	2788	37.5	0.173	
549	NGC 6907	20 25 06.65	−24 48 32.6	11.90	3.9	Sbc	SB(s)bc	3162	37.5	0.274	
550	NGC 6909	20 27 38.91	−47 01 36.8	12.76	−4.1	E	cD:	2714	33.9	0.162	

TABLE 1: THE SAMPLE—*Continued*

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
551	NGC 6923	20 31 39.01	−30 49 54.6	12.68	3.1	SBb	SB(rs)b:	2838	36.6	0.383	
552	NGC 6925	20 34 20.45	−31 58 49.6	12.12	4.0	Sbc	SA(s)bc	2790	31.2	0.252	
553	NGC 6935	20 38 20.18	−52 06 37.7	12.83	1.1	SABa	(R′)SA(r)a	4486	60.3r	0.151	
554	NGC 6942	20 40 37.79	−54 18 10.8	12.77	−0.1	S0/a	(R′)SB(rs)0/a:	3603	43.0r	0.202	
555	NGC 6943	20 44 33.63	−68 44 51.4	12.04	5.9	SABc	SAB(r)cd:	3117	34.4	0.215	
556	NGC 6958	20 48 42.57	−37 59 50.7	12.68	−3.9	E	cD	2700	33.1	0.194	
557	NGC 7029	21 11 51.99	−49 17 01.2	12.67	−4.7	E	E6:	2810	36.2	0.159	
558	NGC 7038	21 15 07.48	−47 13 13.3	12.31	4.9	SABc	SAB(s)c:	4934	62.7	0.148	
559	NGC 7041	21 16 32.33	−48 21 48.5	12.31	−3.0	E/SO	SA(rs)0 [−] :	1923	24.9	0.172	
560	NGC 7049	21 19 00.26	−48 33 43.5	11.64	−1.9	S0	SA(s)9 ⁰	2211	28.8	0.234	
561	NGC 7059	21 27 21.45	−60 00 52.5	12.45	5.1	SABc	SAB(rs)c	1734	32.1	0.140	
562	NGC 7070	21 30 25.35	−43 05 13.5	12.80	5.9	Sc	SA(s)cd	2396	30.3	0.129	
563	NGC 7079	21 32 35.21	−44 04 03.2	12.50	−1.9	S0	SA(s)0 ⁰	2746	33.9	0.134	
564	NGC 7083	21 35 44.60	−63 54 10.0	11.92	4.1	Sbc	SA(s)bc	3112	33.9	0.172	
565	NGC 7090	21 36 28.18	−54 33 19.9	11.31	5.1	Sc	SBc? spin	853	8.7	0.099	
566	NGC 7098	21 44 16.10	−75 06 40.6	12.58	1.0	Sa	(R)SAB(rs)a	2362	29.1	0.374	
567	NGC 7135	21 49 45.96	−34 52 34.2	12.86	−3.0	E/SO	SA0 [−] pec	2396	34.7	0.123	
568	NGC 7140	21 52 15.29	−55 34 10.7	12.72	3.7	SABb	SAB(rs)bc	2966	37.4	0.098	
569	NGC 7144	21 52 42.44	−48 15 13.6	11.70	−4.8	E	E0	1952	24.9	0.091	
570	NGC 7145	21 53 20.23	−47 52 56.3	12.57	−4.9	E	E0	1890	23.1	0.091	
571	NGC 7154	21 55 21.07	−34 48 51.4	12.90	8.8	Sm	SB(s)m pec:	2614	28.4	0.099	
572	NGC 7172	22 02 01.89	−31 52 11.5	12.87	1.2	Sa	Sa pec spin	2571	33.9	0.115	
573	NGC 7176	22 02 05.91	−31 58 48.8	12.39	−4.8	E	E pec:	2543	37.3	0.113	
574	NGC 7184	22 02 39.77	−20 48 45.5	11.80	4.7	SBc	SB(r)c	2619	33.6	0.141	
575	NGC 7192	22 06 50.04	−64 18 58.5	12.76	−4.0	E	cD:	2914	34.0	0.146	
576	NGC 7196	22 05 54.75	−50 07 09.5	12.59	−4.9	E	E:	2928	45.7	0.095	
577	NGC 7205	22 08 34.29	−57 26 33.2	11.64	4.2	Sbc	SA(s)bc	1689	19.5	0.098	V band
578	NGC 7213	22 09 16.19	−47 09 59.7	11.71	0.7	Sa	SA(s)a:	1792	22	0.065	
579	NGC 7218	22 10 11.76	−16 39 40.6	12.50	5.6	Sc	SB(rs)cd	1662	24.9	0.141	
580	NGC 7285	22 28 36.95	−24 50 34.4	12.90	1.1	SBA	SB(rs)a pec1	4425	55.0r	0.105	
581	NGC 7307	22 33 52.53	−40 55 58.0	12.84	5.9	Sc	SB(s)cd pec:	2087	26.4	0.067	
582	NGC 7314	22 35 46.15	−26 03 01.3	11.68	4.3	SABb	SAB(rs)bc	1425	18.9	0.092	
583	NGC 7329	22 40 24.17	−66 28 43.8	12.17	3.2	SBb	SB(r)b	3248	42.6	0.116	
584	NGC 7361	22 42 18.17	−30 03 29.2	12.82	5.1	Sc	S(r)c?	1246	17.6	0.072	
585	NGC 7371	22 46 03.73	−11 00 04.0	12.81	0.2	S0/a	(R)SA(r)0/a:	2685	31.2	0.254	
586	NGC 7377	22 47 47.43	−22 18 43.7	12.42	−1.1	S0/a	SA(s)0 ⁺	3358	41.3r	0.121	
587	NGC 7392	22 51 48.71	−20 36 29.3	12.61	3.7	SBbc	SA(s)bc	3124	45.8	0.144	
588	NGC 7410	22 55 00.88	−39 39 40.4	11.95	1.0	SBA	SB(s)a	1690	20.1	0.051	
589	NGC 7412	22 55 45.72	−42 38 31.1	11.92	3.4	SBb	SB(s)b	1716	12.5	0.050	
590	NGC 7418	22 56 36.09	−37 01 47.3	11.84	5.8	Sc	SAB(rs)cd	1446	18.1	0.069	
591	NGC 7421	22 56 54.31	−37 20 50.1	12.78	4.0	Sbc	SB(rs)bc	1830	20.9r	0.064	
592	NGC 7424	22 57 18.37	−41 04 13.8	11.54	5.9	Sc	SAB(rs)cd	940	11.5	0.046	
593	NGC 7456	23 02 10.32	−39 34 09.5	12.43	5.9	Sc	SA(s)cd:	1209	16.7	0.046	
594	NGC 7496	23 09 47.28	−43 25 40.3	12.90	3.2	Sb	SB(s)b	1647	20.1	0.042	
595	NGC 7507	23 12 07.55	−28 32 21.9	11.59	−4.9	E	E0	1562	22.5	0.206	
596	NGC 7513	23 13 14.03	−28 21 27.1	12.64	3.0	SBb	(R′)SB(s)b pec	1569	19.4	0.176	
597	NGC 7531	23 14 48.39	−43 35 59.3	11.89	4.1	SABb	SAB(r)bc	1596	23.6	0.045	
598	NGC 7552	23 16 10.68	−42 35 04.6	11.19	2.2	Sab	(R′)SB(s)ab	1588	17.2	0.061	
599	NGC 7582	23 18 23.53	−42 22 13.6	11.37	2.0	SBab	(R′)SB(s)ab	1572	20.6	0.061	
600	NGC 7585	23 18 01.31	−04 39 01.0	12.45	−1.2	S0/a	(R′)SA(s)0 ⁺ pec	3433	43.5r	0.241	

TABLE 1: THE SAMPLE—*Continued*

Index	Name	α (J2000) (<i>h m s</i>)	δ (J2000) (<i>° ′ ″</i>)	B_T (mag)	T Type	LEDA Type	RC3 Type	v_h (km s^{-1})	D_L (Mpc)	A_B (mag)	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
601	NGC 7590	23 18 54.74	−42 14 20.6	12.11	4.0	Sbc	SA(rs)bc:	1594	25.3	0.074	
602	NGC 7599	23 19 21.04	−42 15 25.9	12.05	5.1	SBc	SA(s)c	1673	20.9	0.075	
603	NGC 7606	23 19 04.76	−08 29 06.2	11.66	3.2	Sb	SA(s)b	2232	31.6	0.158	
604	NGC 7689	23 33 16.72	−54 05 39.6	12.14	6.0	SABc	SAB(rs)cd	1973	25.2	0.051	
605	NGC 7713	23 36 14.96	−37 56 16.6	11.87	6.9	Scd	SB(r)d:	691	10.3	0.072	
606	NGC 7721	23 38 48.61	−06 31 03.8	12.42	5.0	Sc	SA(s)c	2014	23.4	0.144	
607	NGC 7723	23 38 57.00	−12 57 39.9	11.93	3.1	SBb	SB(r)b	1868	27.5	0.127	
608	NGC 7727	23 39 53.75	−12 17 34.0	11.60	1.0	SABa	SAB(s)a pec	1848	23.3	0.147	
609	NGC 7755	23 47 51.69	−30 31 18.8	12.34	4.8	Sc	SB(rs)c:	2961	31.5	0.069	
610	NGC 7793	23 57 49.83	−32 35 27.7	9.77	7.0	Scd	SA(s)d	229	4.4	0.084	NED
611	NGC 7796	23 58 59.71	−55 27 29.8	12.43	−4.1	E	cD	3372	49.9	0.044	
612	PGC 143	00 01 58.14	−15 27 39.9	11.16	9.8	IB	IB(s)m	−120	1.1	0.160	WLM
613	PGC 3853	01 05 04.85	−06 12 44.6	12.62	6.9	SABc	SAB(rs)d	1094	12.6	0.571	MCG -01-03-085
614	PGC 25886	09 10 49.45	−08 53 26.8	11.92	3.1	SABb	SAB(rs)b: spin	1836	29.6r	0.206	UGCA 150
615	PGC 29653	10 10 59.52	−04 41 43.7	12.13	10.0	IB	IBm	324	1.4	0.188	Sextans A
616	PGC 48179	13 38 10.36	−09 48 08.5	12.83	8.9	SBm	SB(s)m	1300	22.7	0.207	DDO 180

NOTE.— Col. (1) Numerical index. Col. (2) Galaxy name. Col. (3)–(4) Position of the nucleus of the galaxy determined using *I*-band images and **astrometry.net**, unless otherwise noted, accurate to 0''.1. Cases for which an astrometric solution could not be derived have positions taken from NED, as indicated in the notes in the last column. Col. (5) Total *B*-band magnitude, from Hyperleda. Col. (6) Morphological type index, from Hyperleda. Col. (7) Hubble type, from Hyperleda. Col. (8) Hubble type, from RC3. Col. (9) Heliocentric velocity, from RC3. Col. (10) Luminosity distance. Whenever possible, we list the mean redshift-independent distance from NED, or else (entries followed by “r”) calculated from the radial velocity reduced to the reference frame of the 3 K cosmic microwave background assuming $H_0 = 73 \text{ km s}^{-1} \text{ Mpc}^{-1}$, $\Omega_m = 0.27$, and $\Omega_\Lambda = 0.73$. Col. (11) Galactic extinction in the *B* band, from Schlegel et al. (1998), as compiled in NED. Col. (12) Notes. Objects not formally part of the main sample are marked with “extra.”